

# **THE WIDE-REACHING IMPACTS OF INTELLIGENCE ACTIVITIES**

By  
Fletcher J. Franklin

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## **Abstract**

The research in this thesis explores the wide reaching impacts of intelligence activities outside the enclave of the international intelligence community. Chapter one explores the impact U.S. intelligence analysis had on the Cold War policy of attempting to enact regime change in other countries. Through a series of case studies, it is determined that intelligence analysis was likely able to have influenced policymaking. Chapter 2 examines how violent non-state actors' intelligence functions have developed over the past two decades (since 1997). Three case studies determine that the intelligence functions of VNSAs generally have shown significant developments over the past two decades and that these developments mirror developments seen in in states' intelligence agencies, although delayed. Chapter 3 assesses how the recent insertion of space based military and intelligence assets by lesser and new space faring nations has impacted how nations interaction in space. A series of case studies surveying the behaviors of space faring nations after the first insertion of military and intelligence assets by several lesser and new space faring nations determines that though there has been an increased level of cooperation in space, there is evidence to suggest the domain is now a more competitive environment. In examining some of the expected and unexpected effects of intelligence activities, this thesis aims to enrich the field of intelligence studies by addressing several under researched topics.

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## Introduction

When intelligence agencies and their activities receive attention in the news and in popular culture, they are often portrayed as existing in a dark, shadowy world that is separate from every-day life. This portrayal may feel accurate because governments are wont to keep quiet about their clandestine dealings. In reality intelligence activities influence many parts of everyday life. This tendency to view intelligence activities on the periphery has also affected much of the academic work focusing on intelligence. For example, research in the field of intelligence studies has been cited as insular, focusing on the impacts of outside factors on intelligence activities. Moreover, much of the research is focused on internal intelligence operations such as collection and analysis (parts of the broader intelligence cycle), intelligence successes and failures, and the use of covert actions.<sup>1</sup> Literature covering these topics is valuable to advancing the field of intelligence studies and helps strengthen the less than clear definition of intelligence. This thesis attempts to step outside these topics by examining how intelligence activities shape state behavior and interaction by impacting other areas such as international relations, policy-making, and the behaviors of violent non-state actors (VNSA). In examining some of the expected and unexpected effects of intelligence activities, this thesis aims to enrich the field of intelligence studies by addressing several under researched topics.

The first chapter in this portfolio explores how (US) intelligence analysis influenced the Cold War policy of attempting to enact regime change in foreign

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<sup>1</sup> Lock K. Johnson and Allison M. Shelton, "Thoughts on the State of Intelligence Studies: A Survey Report," *Intelligence & National Security*, Vol. 28.1, 111-115.

countries. This question was chosen for several reasons. First, though much research has been done to examine the impacts that policy has on intelligence, there has been insufficient attention paid to the role intelligence analysis played in significant policy decisions, some of which continue to shape the world decades after their implementation. Additionally, this question presented an opportunity to add a layer of depth to the scholarly work done in the field of Cold War political history by providing a thorough assessment of the intelligence analysis policymakers were provided regarding regimes that were determined averse to US interests at the time.

Informed by several theories in the existing literature on intelligence analysis, a hypothesis was formed that intelligence analysis had little influence on the US policy of attempting to enact regime change in foreign countries during the Cold War. A series of case studies analyzing the intelligence products provided to the executive proves that this hypothesis was incorrect. In fact, most of the intelligence products examined provided assessments that the regime in question was under imminent threat of falling to Communism, was already linked to Communism, or directly threatened US interests. The consistency between the intelligence analysis and the policy outcomes demonstrates that intelligence analysis may have influenced policymaking in these instances, but was insufficient to unequivocally prove direct influence. This study is valuable because it opens the door for further research on this question and provides research methods to apply to other policy areas. Furthermore, this research demonstrates the interconnectedness between intelligence studies and policy studies.

The second chapter is an examination of how violent non-state actors (VNSA) employ intelligence activities and recent developments in their methods. This research

includes a comparative study of the intelligence agencies of states (such as the CIA in the US and MI-5 in the United Kingdom) and the intelligence functions of VNSA. The existing literature on non-state actors conducting intelligence activities shows that they often mirrored those activities of state intelligence agencies. To provide a point of comparison for the development of VNSA intelligence functions over time, the literature review describes major trends in states' intelligence agencies over the past fifty years.

The recent data covering three VNSA demonstrate that their intelligence functions follow many of the same trends seen in state intelligence agencies, only delayed. Perhaps chief among these trends is the increased reliance on technology for intelligence collection. Many of the technologies VNSA utilize for intelligence collection that are freely available today were created by state intelligence agencies. For example, the USSR and US created satellites to spy on each other from above and became increasingly reliant on these systems over time. As the technologies for satellites that provide imagery proliferated to the public, VNSA were quick to employ commercially available satellite imagery in their intelligence activities. While this is only one example, the data demonstrate that VNSA have largely mirrored their intelligence functions after state intelligence agencies. By highlighting another area in which states' intelligence activities impact an outside entity, namely VNSA, this research provides a new lens through which to examine intelligence. Moreover, it demonstrates how vital intelligence functions are to the continued existence of VNSA and how states may adjust their strategies in dealing with such groups.

The final chapter of this portfolio examines how intelligence activities impact international relations. The chapter focuses specifically on the recent insertion of



military and intelligence systems into outer space by lesser and new space faring nations. Born in the early days of the Cold War, satellites quickly entered the intelligence collection tool-kits of the USSR and US. These systems allow for largely risk-free intelligence collection and can provide real time, actionable intelligence about any target on the globe. There is a wealth of literature on the space race between the USSR and US in the field of international relations. However, less research has studied the recent increase of new military and intelligence satellites inserted into space by lesser, or entirely new, space faring nations, and the subsequent complication of the geopolitics in this arena. This chapter builds on the existing literature by examining how the recent insertions of military and intelligence assets into space by lesser and new space faring nations has impacted the way nations interact in space.

To answer the research question, a series of case studies analyze interactions between space faring nations subsequent to several new military and intelligence space programs instituted since 2000. The data reveal that despite a stable or perhaps increased number of cooperative space activities as compared to the first fifty years of space exploration, there are legitimate arguments to be made that the space environment is now more competitive. The data suggest that new nations inserting military and intelligence systems into space are vying for regional dominance in space activities, and are utilizing cooperative agreements as a means to strengthen their space programs.

The conclusions of this research are a significant contribution to the study of how intelligence activities impact other arenas. It is difficult to study international interactions in intelligence because of the clandestine nature of these activities. For example, data on international reactions to a new intelligence liaison relationship between

two nations is understandably limited. However, this research shows that some nations publicize their new intelligence gathering satellites as a point of pride and that nations opposing their neighbors' new capabilities at times publicly voiced condemnation. Moreover, this research provides a model by which to evaluate other impacts intelligence activities may have on international relations. A similar research design could be utilized to demonstrate how the establishment of other military and intelligence functions has impacted international relations. These conclusions could help to elevate the visibility of the impacts intelligence activities have on other areas, such as foreign relations.

Each chapter in this portfolio illustrates an instance where intelligence activities shape states' behavior by impacting other areas such as international relations, policy making, and geopolitics. By stepping outside of the existing literature on intelligence activities, which tends to be inward looking, the conclusions of these chapters are expected to raise attention to the wide-reaching implications that intelligence activities have in other arenas. The research designs and suggestions for further research are also intended to open the door for additional research about intelligence activities and their proximity to issues that may be considered unrelated.

# **Chapter 1: Cold War Intelligence Analysis and its Effects on Policy Making**

## **Introduction**

Much of the discussion of the intelligence community centers on operational aspects of intelligence and the various collection disciplines. There is also a robust dialogue about intelligence analysis and how it has developed over time. The debate mostly surrounds the strengths and weaknesses of analysis, its areas of focus, its accuracy and its utility. Much attention has been given to “intelligence failures” throughout the history of the US Intelligence Community, such as the failure to predict the fall of the Soviet Union, the failure to predict the 9/11 attacks, and the Iraqi WMD Estimate. Despite these vibrant and important discussions, there are still questions that remain unanswered in our evaluations of the role the intelligence community and its analytical products play in informing policy. In a 2012 survey of editorial board members of *Intelligence and National Security*, the question “what are the most over- and under-researched topics of research in the field of intelligence studies?” was posed.<sup>2</sup> In answering the “under-researched” part of the question, two leading intelligence studies scholars, Richard Betts and Robert Jervis, concurred that the field of intelligence studies is perhaps “under-researched on the central question of the influence of intelligence on policy,” whereas the inverse is well known.<sup>3</sup> This paper will seek to address that very question by assessing, through a series of case studies, how intelligence analysis did or did not influence the policy decisions to attempt to enact regime change in foreign countries during the Cold War.

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<sup>2</sup> Lock K. Johnson and Allison M. Shelton, “Thoughts on the State of Intelligence Studies: A Survey Report,” *Intelligence & National Security*, Vol. 28.1, 112.

<sup>3</sup> Ibid.

At times when national security is considered threatened, the President has many tools at his or her disposal to determine what is the best course of action and, subsequently, to act. During the Cold War, the newly formed intelligence apparatus of the United States became one of the foremost instruments for combatting Communism. Central Intelligence Agency (CIA) stations were established in foreign countries that served as the clandestine battlefields of the Cold War. Intelligence gathering reached far and wide, while analysts worked to piece together assessments of Russian capabilities and influence. As will be discussed in this paper, it is the role of intelligence analysis to inform the policy maker in times of uncertainty. At the time of the case studies examined, the United States was gripped by a fear of Communism, and the policies in place aimed at combatting Soviet influence on a global scale were proving ineffectual in easing these worries. An examination of the intelligence analysis presented to the executive in the following cases of US backed coups in Iran (1953), Guatemala (1954), Congo (1960), and Brazil (1964), will reveal if the intelligence establishment, albeit in its early days, was in fact able to achieve its purpose of informing policy.<sup>4</sup>

### **Literature Review**

In order to better understand what role intelligence analysis played in informing policy making, it is important to understand certain fundamental tenets of intelligence analysis. First, what is intelligence, and when do policy makers rely on it? In other words, what are the general instances in which we expect policy makers to utilize intelligence to inform policy making? Second, what role is intelligence analysis intended to play in the intelligence process? It is important to understand where analysis is

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<sup>4</sup> The term “executive” in this paper refers to: the President, the National Security Council or any of its members, the Secretary of State, or other cabinet level positions involved with national security policy making.

situated in relation to the customer, namely the policy maker, as well as the other aspects of the Intelligence cycle. Lastly, has the answer to the second question changed over time, or does it remain constant? As a nascent tool in the National Security apparatus of the United States, the intelligence community was still finding its way in the early years of the Cold War. So too were the Presidential administrations learning how to utilize this apparatus, and each administration varied widely on how they did so. Today, there are widely accepted understandings of what role intelligence analysis should ideally play, and when policy makers are expected to rely upon it. There is more debate about how this has changed over time and between administrations. By first identifying the answers to these questions and pinpointing the key debates, we can better understand the role intelligence analysis is intended to fill in informing policy. Moreover, we can better identify whether or not intelligence achieved its intended goals or not in the case studies examined.

Determining when the policy maker calls upon intelligence invokes the very definition of intelligence itself. This definition is admittedly varied and murky at best, according to many scholars in the field of intelligence studies.<sup>5</sup> From these varied definitions, however, we see common threads as to when intelligence is expected to inform policy. Lowenthal offers the following reasons for when intelligence is relied upon: to avoid strategic surprise, to provide long-term expertise, to support the policy process, and to maintain the secrecy of information, needs, and methods.<sup>6</sup> In this explanation we see both the need for immediate intelligence – avoiding strategic

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<sup>5</sup> Mark M. Lowenthal, *Intelligence: From Secrets to Policy*, sixth ed. (Los Angeles: CQ Press, 2015), p. 1-2.

<sup>6</sup> Mark M. Lowenthal, “What is Intelligence?” in *Intelligence: From Secrets to Policy*, sixth ed. (Los Angeles: CQ Press, 2015), p. 2-5.

surprise—and long-term analysis. Lowenthal also emphasizes that intelligence is intended to support the policy process in a variety of ways. Betts offers us an additional, slightly broader reason why policy makers rely on intelligence: “It is the role of intelligence to extract certainty from uncertainty and to facilitate coherent decision in an incoherent environment.”<sup>7</sup> Betts is quick to point out that this reality has led to a heightened (and often unrealistic) expectation of what intelligence can actually provide for the policy maker. When identifying how intelligence serves the policy maker, Johnson adopts the definition of intelligence proposed by British scholars Gill and Pythian that intelligence is:

[A]imed at maintaining or enhancing relative security by providing forewarning of threats or potential threats in a manner that allows for the timely implementation of a preventive policy or strategy, including, where deemed desirable, covert activities.<sup>8</sup>

While this explanation draws many similarities to Lowenthal’s, it also includes the important distinction that intelligence serves to support policy making regarding covert activities, such as influencing regime change in a foreign country. Treverton concurs that the purpose of intelligence is to mitigate threats, and adds that in order to do so it must solve puzzles and attempt to solve mysteries. By this, he means that there are questions – puzzles – intelligence can answer if all the pieces are available. Mysteries are unsolvable, but clarity and insight can be provided.<sup>9</sup> With slight variations in the definitions provided by these scholars, we see a constant theme that intelligence analysis is intended to provide the policy maker with information to warn about current threats,

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<sup>7</sup> Richard K. Betts, *Enemies of Intelligence: Knowledge and Power in American National Security* (New York: Columbia University Press, 2007), p. 30.

<sup>8</sup> Lock Johnson, *National Security Intelligence*, p. 15; Peter Gill and Mark Pythian, *Intelligence in an Insecure World* (Cambridge, UK: Polity, 2006), p. 7.

<sup>9</sup> Gregory F. Treverton, *Intelligence for an Age of Terror* (New York: Cambridge University Press, 2009).

inform decision-making, and aid the policy process. Policy makers are generally expected to rely on intelligence for indications and warnings of threats, subject matter expertise, and to provide clarity where uncertainty exists.

While there are different interpretations as to precisely when policy makers rely upon intelligence analysis, there is a consensus that there are day-to-day needs for intelligence from the executive pertaining to the most pressing national security needs, regardless of a request for specific information. For the most part, presidents receive current intelligence daily in the form of the President's Daily Brief (PDB). In some instances, intelligence products are requested on an ad-hoc basis. On other issues long-term forecasts are needed. In the case of long-term intelligence, the most common product is a National Intelligence Estimate (NIE), a collective product produced from analysis by all member agencies of the Intelligence Community. Johnson points out that different administrations have called for NIEs at varying rates, and in the absence of such requests, the intelligence community is left to its own devices to decide when to produce them.<sup>10</sup>

As the term “intelligence” encompasses many aspects, it is important to understand more precisely where analysis is situated in the process. Johnson offers us a model termed “the intelligence cycle,” in which planning and direction from the policy maker sets priorities for the collection of intelligence, the fruits of which are then processed, analyzed, and disseminated. As implied by the term cycle, this process flows in a never-ending circle.<sup>11</sup> This has become known as the “standard model” of the

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<sup>10</sup> Loch K. Johnson, *National Security Intelligence: Secret Operations in Defense of the Democracies* (Cambridge: Polity, 2012), 58-60.

<sup>11</sup> Loch K. Johnson, *National Security Intelligence: Secret Operations in Defense of the Democracies* (Cambridge: Polity, 2012), 37-38.

intelligence cycle. Marrin advances a challenge to the standard model, in which the intelligence community more frequently pushes intelligence priorities to the policy maker, as opposed to the policy maker pulling information from the intelligence community.<sup>12</sup> It is Marrin's belief that the standard model has never been an accurate representation of the intelligence cycle, and suggests a more accurate interpretation is that intelligence requirements flow both ways, top-down and bottom-up. The "intelligence process" as defined by Lowenthal, is "the steps or stages in intelligence, from policy makers perceiving a need for information to the community's delivery of an analytical intelligence product to them."<sup>13</sup> In this definition, the process is ideally cyclical and multi-layered. Requirements are set, collection is undertaken, the information goes through processing and exploitation (P&E), and analysis then takes place, after which a product is disseminated, consumed, and finally, feedback is given. Lowenthal notes there are many variables in this process, but it is clear where analysis comes in to play: taking information and turning it into consumable reports for policy makers. What Lowenthal's expanded model accounts for is a back and forth between the analysis, collection, and policy maker's feedback stages of the process. Accordingly, we see policy makers and analysts informing collection priorities, and feedback from the policy makers regarding their requirements.<sup>14</sup> Despite the variations mentioned above, the existing scholarship largely agrees upon the role of and place for analysis. Intelligence analysis is meant to take processed information, assess it, and turn it into a relevant, timely, objective product for dissemination to policy makers.

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<sup>12</sup> Stephen Marrin, "Intelligence Analysis and Decision-Making: Methodological challenges," in *Intelligence Theory: Key Questions and Debates*, ed. Mark Pythian, Peter Gill and Stephen Marrin (London; New York: Routledge, 2008), 131-132.

<sup>13</sup> Mark M. Lowenthal, *Intelligence: From Secrets to Policy*, sixth ed. (Los Angeles: CQ Press, 2015), 70.

<sup>14</sup> Lowenthal, *Intelligence: From Secrets to Policy*, 72.



Understanding how analysis fits into the intelligence process and when it is called upon helps us understand the role it is expected to play in the larger picture of policy making. The remaining question is whether or not this role has changed over time. This is perhaps the question with the most disagreement among intelligence scholars, although there are consistent themes as well. Most scholars agree that each administration will have a different perception of the utility of intelligence for informing policy-making. However, there is debate about whether the passage of time has the same effect in shaping the purpose of intelligence analysis. Treverton offers the idea that after the Cold War, as attention shifted from nation-state threats to non-state actors, the requirements for intelligence have changed.<sup>15</sup> Treverton emphasizes the idea that while the role of informing the policy maker will still exist, expansions will be made to sharing intelligence with law enforcement, international allies, and with non-state entities such as Non-Governmental Organizations (NGOs) and the UN, among others. Moreover, as the role of intelligence expands, so too does the mission for intelligence analysts. Lowenthal also outlines the variety of challenges analysis faces when there are paradigm shifts in the threat environment. Lowenthal also notes that as technology has created a larger offering of new and improved intelligence products, the role of analysis has grown for certain disciplines, such as imagery analysis.<sup>16</sup> Medina posits that because information has become more abundant over time, intelligence analysis has to find a different way to add value to what a policy maker likely already knows. Because policy makers are receiving more raw intelligence and are better informed on global issues today than they were thirty years ago (thanks to improved communications), analysts need to be more adventurous to

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<sup>15</sup> Ibid.

<sup>16</sup> Lowenthal, *Intelligence: From Secrets to Policy*, p. 109-111.

provide analysis that is more policy-relevant and will do more to inform beyond what is already known.<sup>17</sup> Marrin concurs, and further hypothesizes that there is a recent trend in American foreign policy that intelligence analysis was ignored by policymakers.<sup>18</sup> A weakness of the existing literature is the lack of discussion of how intelligence analysis is actually able to inform policy, the very purpose it is meant to serve, as time has passed and the threat environment has changed.

Although there are varying views about the role of intelligence analysis over time, there is a consensus among scholars that there is an emphasis from policy makers, more so today than ever, on current intelligence, as opposed to long-term analysis and forecasting. This is a reality of the US system in which administrations tend to think in timeframes that coincide with election cycles. Because of this, intelligence priorities are more likely to be focused on the immediate issues, and less likely to prioritize issues that are simply budding or simmering. Loch argues for the value of both current and long term analysis, although he notes that policy makers clearly prefer current intelligence.<sup>19</sup> Lowenthal leans towards current analysis, warning that as analysis ranges beyond a few years, its accuracy is likely to decrease. He also notes that policy makers are far less concerned about long-term issues.<sup>20</sup> Betts too warns that a lack of long-term analysis puts unfair constraints on intelligence analysts and hinders their ability to provide what they believe to be the best analytical product to help inform policy.<sup>21</sup> Treverton has also emphasized that long-term analysis is necessary to better understand how new threats

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<sup>17</sup> Medina, "What to do When Intelligence Models Fail," in *Intelligence and The National Security Strategist*, ed. Roger Z. George and Robert D. Kline (Washington, DC, National Defense University Press, 2004), p. 423.

<sup>18</sup> Stephen, Marrin, "Why Intelligence Analysis has Limited Influence on American Foreign Policy," APSA 2014 Annual Meeting Paper, 2014, available at SSRN: <https://ssrn.com/abstract=2451923>.

<sup>19</sup> Johnson, *National Security Intelligence*, p. 66-67.

<sup>20</sup> Lowenthal, *Intelligence: From Secrets to Policy*, p. 154.

<sup>21</sup> Richard K. Betts, "Fixing Intelligence," *Foreign Affairs*, Vol. 81 No. 1, Jan/Feb, 2002, 50.

arise in a globalized world.<sup>22</sup> Regardless of its specific mission, such as attempting to forecast a long-term issue or answering an immediate question, at its core, intelligence analysis is intended to use objective information to provide clarity to the policy maker on complex issues in order to inform decision-making.

The existing literature in the field of intelligence studies has presented clarity on several key understandings of the role intelligence analysis is supposed to fill for the executive. First, intelligence analysis plays a key role in the intelligence cycle, bridging the gap between collection and raw data and presenting an intelligible assessment of the information to the policy maker. Second, intelligence analysis is meant to aid in the policy making process, largely by providing insight in situations of great uncertainty. Lastly, the role for intelligence analysis may change over time and between administrations due to external factors. The existing scholarship is pessimistic and posits that intelligence has never truly been able to influence policy, however this is based on interpretations from individuals who worked in and around the intelligence community. An examination, through a series of case studies, of the intelligence analysis presented to the executive regarding countries where the US enacted regime change during the Cold War, will provide evidence of whether intelligence played a role in influencing US policy.

### **Theory and Hypothesis**

The hypothesis of this paper is that intelligence analysis had little influence on policy making during the Cold War. The hypothesis is informed by several theories. The

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<sup>22</sup> Gregory F. Treverton and Jeremy J. Ghez, *Rand Corporation Conference Proceedings Series, Making Strategic Analysis Matter* (Santa Monica, CA: RAND, 2012), 1, [http://www.rand.org/content/dam/rand/pubs/conf\\_proceedings/2012/rand\\_cf287.pdf](http://www.rand.org/content/dam/rand/pubs/conf_proceedings/2012/rand_cf287.pdf).

first of which is that the definitions of intelligence already discussed – as a tool to inform policy – are idealistic. In reality, as discussed in the writings of both Helgerson and Priess, each President acts as the ultimate decision maker, reserving their right to disagree with any analysis presented to them.<sup>23</sup> Furthermore, each President holds his or her own view of the intelligence community and decide its ultimate role in the administration. As such, any analysis presented to the executive can be either completely cast aside or taken into complete consideration. Another theory that informs this hypothesis is that at the time of these cases, the West was so gripped by the fear of Communism that if intelligence analysis assessed a country to have even the slightest possibility of Communist leanings or minimal interactions with the USSR – even if the assessment was that the country was not at risk of falling under the proverbial iron curtain – it is possible that this was enough justification in the eyes of a policy maker to enact regime change. Lastly, it is well known that there existed other reasons for the US to place more favorable regimes in certain countries, such as privately owned economic interests such as the United Fruit Company in Guatemala, oil business in Iran, and precious uranium resources in the Congo. It must be considered that even if intelligence analysis was informing the executive that these interests were not immediately at risk, the policy choices made may have been attempts at proactively securing them. By specifically examining the intelligence analysis provided to the executive in instances where regime change was enacted, this paper will set out to determine if intelligence analysis effected

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<sup>23</sup> John L. Helgerson, *Getting to Know the President: Intelligence Briefings of Presidential Candidates, 1952-2004*, 2nd ed. (Washington, D.C.: Center for the Study of Intelligence) Central Intelligence Agency, 2012; and David Priess, *The President's Book of Secrets: The Untold Story of Intelligence Briefings to America's Presidents from Kennedy to Obama* (New York: PublicAffairs), 2016.

such policy decisions and outcomes through assessments in the analysis that provided cause for the Presidential administrations to enact regime change.

## **Methods**

In order to answer the research question, a series of case studies was undertaken. This study is a controlled comparison design as it uses case studies that provide examples in which regime change was the chosen policy, and the comparison will be of the data – i.e. the intelligence analysis – that did or did not support the policy outcome. In this research design, the intelligence analysis is the independent variable, as the question is whether or not the analysis (x), had any impact on the policy to enact regime change (y). The data used in this research design is historical and archival in focus. Primarily, analytical products from the intelligence community that were presented to the executive in each case were chosen, including (but not limited to): National Intelligence Estimates (NIE); Presidential Daily Briefings (PDB, also called “The President’s Intelligence Checklist,”); high-level CIA memos; high level State Department documents, particularly those involving assessments from the Bureau of Intelligence and Research (INR).<sup>24</sup>

Operationalizing the independent variable was contingent upon the understanding that the US policy of enacting regime change was justified by the engrained Cold War rhetoric that Communism was a threat to US interests, domestic and foreign. Therefore, intelligence analysis (in this study) was measured in its effects on influencing policy by several factors, the first of which being that it preceded the formal policy decision to enact regime change. Additionally, the intelligence analysis had to express at least one of the following assessments with confidence: the regime in a foreign country posed a threat

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<sup>24</sup> The term “executive” in this paper refers to: the President, the National Security Council or any of its members, the Secretary of State, or other cabinet level positions involved with national security policy making.

to the US; the regime in a foreign country was imminently at risk of falling under the influence of Communism/USSR (or had already fallen under); any alternative to the current regime would be more favorable to US interests; an explicit identification of a party within a foreign country that should be supported by the US in any way, in hopes that it could replace the current regime. If the evidence met any of these measures, it was considered likely to have influenced policy, as each data would have been presented to the executive. The dependent variable, the policy to enact regime change, is inherently measured, as each case is a verified instance in which the US attempted regime change in a foreign country. The exception to this is the case study of Iran in 1953, which acts as a counter to confirmation bias on the part of the researcher. The case was examined across two administrations that were presented with the option to enact regime change. In this case, two presidents worked with similar intelligence analysis on the same issue and made different policy decisions, therefore showing that despite a positive or negative hypothesis about the influence of intelligence analysis on policy, there is an example to counteract it.

The case studies in this paper were chosen because they are recognized instances in which the US chose to enact regime change in a foreign country. Moreover, these cases cover three presidential administrations and have enough declassified material to provide an opportunity for thorough analysis. The hypothesis formed when approaching this research is that intelligence analysis had little influence on policy-making. Evidence that contradicts this hypothesis is the easiest to identify. For example, an NIE that assessed a high risk to US national interests from a foreign regime preceding a US backed coup in said country would be directly refuting the hypothesis. Evidence that

supports the hypothesis is less straightforward. A complete survey of analytical intelligence products regarding the political situation of one country is not a realistic undertaking due to both the breadth of information as well as the likely classification of documents. Therefore, any absence of negative evidence cannot be taken as a complete answer. Moreover, as geopolitical situations are often unclear, there may be instances in which the intelligence analysis does not provide a high level of confidence in its assessments. The most unambiguous example of evidence supporting the hypothesis is analysis that plainly assessed no reason to believe that a regime was imminently at risk of falling under Communist/USSR influence or that a homegrown Communist movement was threatening US interests. Additionally, intelligence analysis that assessed that there were options for allying with or negotiating with a regime that was being considered for overthrow can be taken as evidence supporting the hypothesis.

## **Data**

### **Iran**

The case of the 1953 Iranian Coup d'état was examined across the Truman and Eisenhower administrations. During the Truman administration, Iran was rife with political turmoil. Embroiled in a dispute over Iranian oil, the British sought US assistance, proposing a coup as a possible course of action.<sup>25</sup> Truman left office in the beginning of 1953, having never given approval for the coup plan. In 1953, the Eisenhower administration made a decision to stage a coup in Iran in order to overthrow the democratically elected Prime Minister, Mohammed Mosadeq. This particular example of regime change will functionally serve as two case studies, with the Truman

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<sup>25</sup> Malcom Byrne, "Road to Intervention: Factors Influencing US Policy Toward Iran, 1945-1953" in *Mohammed Mosaddeq and the 1953 Coup in Iran*, ed. Mark Gasiorowski and Malcolm Byrne (Syracuse, NY: Syracuse University Press, 2004), 214-215.

administration serving as a counter to confirmation bias on the part of the researcher, as two administrations with overlapping data made opposite policy decisions. This case examines the intelligence analysis provided to the executive from the years 1950-1953 primarily in the form intelligence estimates.

In July of 1950, a CIA Special Evaluation assessed that the USSR was unlikely to attack Iran, although it seemed probable that other clandestine efforts would be increased.<sup>26</sup> A National Intelligence Estimate from December of that year similarly evaluated that the USSR had no plans to directly invade Iran.<sup>27</sup> As we see in these documents, there was analysis that the USSR was attempting to exert influence in Iran, but no assessment of any immediate threat to US interests. Moving forward into 1951, there was an increase in nationalist fervor in Iran, as well as a push for the nationalization of Iranian oil. As a result, we see a greater focus in the intelligence assessments during that time on the possibility of the USSR asserting influence in Iran.

A Special Estimate dated March 18, 1951 looked to address the “Current Crisis in Iran,” referring to the political instability following the assassination of the Prime Minister Haj Ali Razmara on March 7. The document stated, “We do not believe, however, that the situation is such that there is imminent danger of the government’s losing control, barring armed intervention by the USSR.” The authors went on to explain that “The illegal pro-Soviet Tudeh Party is not believed to be capable of taking advantage of the current tension to gain control of the government or even seriously to disrupt the

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<sup>26</sup> CIA, Special Evaluation No. 39, “Possibility of Soviet Aggression Against Iran,” 27 July 1950, CIA FOIA Reading Room, p.2, accessed <https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/books-and-monographs/assessing-the-soviet-threat-the-early-cold-war-years/5563bod4.pdf>.

<sup>27</sup> CIA, “National Intelligence Estimate 15: Possible Soviet Moves to Exploit the Present Situation,” Dec. 11, 1950, Foreign Relations of the United States, 1951, National Security Affairs, Foreign Economic Policy, Volume I, p. 6, accessed <https://history.state.gov/historicaldocuments/frus1951v01/d3>.



government's control."<sup>28</sup> An NIE published in April 1951 entitled "Iran's Position in the East-West Conflict," similarly assessed that the USSR would not take overt military action in Iran.<sup>29</sup> However, this estimate noted that while "Most Iranians are better disposed toward the West than towards the USSR," this relationship was threatened by Iran's vulnerability should the USSR attack.<sup>30</sup> Regarding the Communist Tudeh Party in Iran, the analysis did not present any fears of the party taking power, owing to their illegal status at the time.<sup>31</sup> While the political turmoil and oil crisis in Iran did cause US interest in Iran to spike, the intelligence analysis still did not present any immediate threat of the country falling to Communism.

Mossadeq ascended to office in 1952, and intelligence analysis began to acutely focus on his activities. A CIA Special Estimate from October 1952 specifically addressed the prospects for Mossadeq's "regime." The estimate first assessed that the Mossadeq government would survive for at least six months, and went on to say that the Tudeh were almost certainly unable to overthrow the government, and no other attempts at overthrow from other groups were likely. The estimate also raised the issue of Mullah Kashani, an "ambitious Moslem leader," rising to power. In fact, the estimate stated that Kashani rising to power would be a "situation worse for Western interests than the current one," as this would possibly lead to the rise of the Tudeh.<sup>32</sup> The assessment on the probability of Kashani usurping Mossadeq, however, was low. By the end of 1952, a US National Intelligence Estimate projecting through 1953 (as Eisenhower would be

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<sup>28</sup> CIA, "Special Estimate: The Current Crisis in Iran," SE-3, March 16, 1951, CIA FOIA Reading Room, p. 4, accessed [https://www.cia.gov/library/readingroom/docs/DOC\\_0000008881.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0000008881.pdf).

<sup>29</sup> CIA, National Intelligence Estimate 6, "Iran's Position in the East-West Conflict," April 5, 1951, CIA FOIA Reading Room, accessed [https://www.cia.gov/library/readingroom/docs/DOC\\_0000010478.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0000010478.pdf)

<sup>30</sup> Ibid., 2.

<sup>31</sup> Ibid., 4.

<sup>32</sup> CIA, Special Estimate, "SE-33: Prospects For Survival of Mossadegh Regime in Iran," October 14, 1952, CIA FOIA Reading Room, accessed [https://www.cia.gov/library/readingroom/docs/DOC\\_0000010612.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0000010612.pdf).

assuming office) illustrated US fears that as an agitator to the political situation in Iran, the Tudeh party was a growing threat. However, the report noted that the group was still likely incapable of carrying out a coup on their own.<sup>33</sup> Thus, the Truman administration came to an end without enacting regime change in Iran.

President Eisenhower assumed office in January 1953, abreast of the same intelligence analysis regarding the situation in Iran that Truman had received over the past year.<sup>34</sup> An intelligence estimate disseminated during Eisenhower's first days in office did offer a heightened sense of worry about Communist factions' growing in Iran. However, it still noted that a breakdown of authority "appears unlikely during 1953," (though it does not make this assessment with the same high confidence of the analysis from late 1952).<sup>35</sup> Eisenhower formally approved the coup in July 1953, though planning had been underway for months before then. In examining the complete data set for this case, there were no assessments that USSR influence or homegrown Communism in Iran posed an imminent threat to US interests. This statement is true for both the Truman and Eisenhower administrations. Thus, considering the Truman administration as one case, we see evidence against the hypothesis; for the second case, we see evidence for the hypothesis, that intelligence analysis did not influence the eventual policy decision.

### **Guatemala**

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<sup>33</sup> CIA, NIE 75, "Probable Developments in Iran Through 1953," Nov. 13, 1952, President's Secretary's Files, Truman Papers (Harry S. Truman Library & Museum) pg. 5, accessed [http://www.trumanlibrary.org/whistlestop/study\\_collections/iran/documents/index.php?documentid=9-10&pagenumber=8](http://www.trumanlibrary.org/whistlestop/study_collections/iran/documents/index.php?documentid=9-10&pagenumber=8), p. 5

<sup>34</sup> "Memorandum of Meeting with President Harry S. Truman, Secretary of the Treasury John Snyder, Secretary of Defense Robert Lovett, Averell Harriman, and President-Elect Dwight D. Eisenhower, Senator Henry Cabot Lodge, and Joseph M. Dodge," November 18, 1952, Acheson Papers, Secretary of State File (Truman Library Website), accessed [http://www.trumanlibrary.org/whistlestop/study\\_collections/iran/documents/index.php?documentdate=1952-11-18&documentid=71-3\\_34&pagenumber=1](http://www.trumanlibrary.org/whistlestop/study_collections/iran/documents/index.php?documentdate=1952-11-18&documentid=71-3_34&pagenumber=1).

<sup>35</sup> CIA, NIE 73, "Conditions and Trends in the Middle East Affecting US Security," January 15, 1953, CIA FOIA Reading Room, p. 5, accessed [https://www.cia.gov/library/readingroom/docs/DOC\\_0000119704.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0000119704.pdf).

The 1954 Guatemalan coup d'état will serve as the next case. Similarly to the case of Iran (1953), this situation crossed two presidential administrations. Guatemalan President Jacobo Arbenz assumed office in 1951, and immediately the Truman administration suspected that the USSR was attempting to meddle in the country's affairs and establish a foothold in the Western hemisphere.<sup>36</sup> Truman authorized plans for a coup to oust Arbenz, however this plan was eventually aborted. Eisenhower authorized the next coup attempt in August 1953, and Arbenz eventually resigned in the face of US backed opposition forces on June 27, 1954. For this case, we will examine mainly data from the Eisenhower administration, with one exception: an NIE from March 1952 projecting through the end of the year, when the administration would change. This NIE assessed that Communist forces in Guatemala were exercising political strength with significant success, but also noted the unlikelihood of Communists assuming power in 1952.<sup>37</sup> Despite this particular piece of analysis, the estimate detailed numerous other worries about the growth of Communism in Guatemala, particularly in the government (the document notes that Arbenz's immediate successor was a pro-communist). As the Eisenhower administration took office, assessments of the Communist threat grew starker.

In response to the dissemination of NIE-70 (published in December, 1952 and disseminated in February of the following year), the American Embassy in Guatemala City sent a memorandum of "field comments," to the Director of the State Department's

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<sup>36</sup> Richard Immerman, *The CIA in Guatemala: The Foreign Policy of Intervention* (Austin: University of Texas Press, 1982), p. 88-100.

<sup>37</sup> CIA, NIE-62, "Present Political Situation in Guatemala and Possible Developments During 1952," March 11, 1952, Foreign Relations of the United States, 1952-1954, Guatemala, accessed <https://history.state.gov/historicaldocuments/frus1952-54Guat/d6>.

Intelligence Bureau. In this letter, the Ambassador to Guatemala Rudolf Schoenfeld warned that the Communist elements within Guatemala may have been underestimated in NIE-70 (which spoke to Communism in Latin America on a grander scale), and had in fact successfully infiltrated the government and were able to influence policy in the country.<sup>38</sup> An intelligence report produced by the Department of State INR in March 1953 also provided a grim outlook regarding the spread of Communism in Guatemala. Specifically addressing the implementation of the Agrarian Reform Law by the Arbenz administration, the intelligence report listed numerous advantages for Communists if the law were to be fully implemented. Moreover, the report noted the success that Communist forces within the country already had in influencing the government and populace in Guatemala.<sup>39</sup> Lastly, the report stated that, “With the assistance of the Communists, who will take advantage of the opportunity to extend their influence over the rural classes, a stronger backing for the government should result.”<sup>40</sup> These reports of Communism in Guatemala were increasing, and analysis would only become more alarming in the coming months.

In a CIA report from March 1953, the analysis stated that Communism spreading in Guatemala was a foregone conclusion, and went on to assess that “The fact that so many communists in high places in the Guatemalan government are on such friendly terms with Russia, makes it clear that under their leadership Guatemala will side with the

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<sup>38</sup> Rudolf E. Schoenfeld, “Field Comments on NIE-72,” CIA FOIA Reading Room, p. 3, accessed [https://www.cia.gov/library/readingroom/docs/DOC\\_0000924040.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0000924040.pdf).

<sup>39</sup> US State Department, “Intelligence Report Prepared in the Office of Intelligence Research,” March 5, 1953, in FRUS, 1952-1954, Guatemala, p. 71, accessed <https://history.state.gov/historicaldocuments/frus1952-54Guat/d35>.

<sup>40</sup> Ibid., 78.

Soviet [sic] in case of an armed conflict.”<sup>41</sup> The report went on to list evidence of Communist success in Guatemala, including control of the “Official Press” and presence in high government positions.<sup>42</sup> NIE-84 (May 1953) assessed the threat of Communism taking hold in Guatemala as imminent. The estimate unambiguously stated, “The current political situation in Guatemala is adverse to US interests. The Guatemalan Communists exercise a political influence far out of proportion to their small numerical strength. Their influence will probably continue to grow as long as President Arbenz remains in power.”<sup>43</sup> This NIE contains the most explicit example of evidence (in this case) that intelligence analysis regarding Guatemala did support the eventual policy decision to enact regime change. The assessment not only expounded the Communist influence within the Guatemalan government and greater populace, but also cast doubts on any viable anti-communist efforts that could present an alternative to Arbenz. The final conclusion of NIE-84 stated: “the regime has systematically been hostile toward US private economic interests in Guatemala.”<sup>44</sup> As seen in the data presented, the intelligence analysis given to the executive regarding Guatemala indicated legitimate fears that the country was essentially lost to Communists under Arbenz.

### **Republic of the Congo**

The fourth case in this study is that of the Republic of the Congo in 1960. The Republic of the Congo achieved independence in June 1960, and Patrice Lumumba was elected Prime Minister the same month. In the political turmoil that ensued, the

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<sup>41</sup> CIA, “A Special Report on the Political Situation of Guatemala and its Relation to Hemispheric Security,” March 3, 1953, CIA FOIA Reading Room, p. 2, accessed [https://www.cia.gov/library/readingroom/docs/DOC\\_0000914959.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0000914959.pdf). This documents author is unknown.

<sup>42</sup> Ibid., 5-7.

<sup>43</sup> CIA, NIE-84, “Probable Developments in Guatemala,” May 8, 1953, CIA FOIA Reading Room, p. 1, accessed <https://www.cia.gov/library/readingroom/document/0000914889>.

<sup>44</sup> CIA, NIE-84, “Probable Developments in Guatemala,” May 8, 1953, CIA FOIA Reading Room, p. 5, accessed <https://www.cia.gov/library/readingroom/document/0000914889>.

intelligence apparatus of the United States acted quickly to assess the situation and try to identify the key players and possible outcomes. Immediately after Lumumba's assumption of office, the CIA assessed him to be a threat to US interests. In an NSC intelligence briefing on July 25, 1960, the assessment that "Congo's position appears to be moving toward Soviet-oriented neutralism," was presented to the council.<sup>45</sup> Interestingly, a memorandum also dated July 25 from the director of the INR Bureau to Secretary of State Herter stressed that reports of Communist influence in the Congo may have been unfounded.<sup>46</sup> At the onset of the "Congo Crisis," as it came to be called, the various intelligence collecting agencies did not necessarily agree in their assessments of Lumumba and Communist influence in the Congo. As time progressed, however, the reports coming from US assets in the Congo grew more alarming.

A cable from the CIA station in Leopoldville to the CIA on August 11 stated that the "Embassy and Station believe Lumumba moving left and Commie influence increasing [sic]." The cable went on to say, "Thus believe fall Lumumba would assist Western objectives [sic]."<sup>47</sup> A CIA "Current Intelligence Weekly Summary" from August 18 assessed that Lumumba was relying on the USSR for political support in dealings with the UN in his country, calling the USSR "Lumumba's firmest outside supporter."<sup>48</sup> In a Memorandum from the Board of National Estimates to the Director of Central

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<sup>45</sup> FRUS, "National Security Council Briefing," July 25, 1960, in FRUS, 1964-1968, Volume XXIII, Congo, 1960-1968, p. 13, accessed <https://history.state.gov/historicaldocuments/frus1964-68v23/d7>.

<sup>46</sup> US Department of State, "Memorandum From the Director of the Bureau of Intelligence and Research (Cumming) to Secretary of State Herter," July 25, 1960, in FRUS, 1958-1960, Africa, Volume XIV, accessed <https://history.state.gov/historicaldocuments/frus1958-60v14/d149>.

<sup>47</sup> CIA, "Telegram from the Station in the Congo to the Central Intelligence Agency," August 11, 1960, in FRUS, 1964-1968, Volume XXIII, Congo, 1960-1968, accessed <https://history.state.gov/historicaldocuments/frus1964-68v23/d8>. It should be noted that this is not a finished intelligence analysis product and its assessments are not being taken as information that reached the executive, but as intelligence reporting that likely informed subsequent intelligence analysis presented to the executive.

<sup>48</sup> CIA, "Current Intelligence Weekly Summary," Aug. 18, 1960, CIA FOIA Reading Room, p. 7, accessed [https://www.cia.gov/library/readingroom/docs/DOC\\_0002967359.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0002967359.pdf).

Intelligence on August 22, it was judged that the USSR appeared “to be developing a considerable stake in Lumumba.” The report assessed that Lumumba was likely to remain in office and concluded the following:

Thus, the crisis will achieve one of the important Soviet objectives in the area, to end the political and economic dominance of the Western powers over what is in terms of resources one of the richest areas in Africa. The USSR will also have substantial opportunities for developing its own influence and moulding the state and economy along radical lines, particularly if Lumumba remains in power.<sup>49</sup>

Influenced by the intelligence analysis regarding Lumumba and his ties to the government, it was directed on August 27 that Lumumba’s “removal must be an urgent and prime objective and that under existing conditions this should be a high priority of our covert action.”<sup>50</sup> Lumumba was removed from office after forces backed by the US staged a coup d’état and deposed the Prime Minister. In the case of Lumumba and the Republic of the Congo, it appears that the majority of evidence examined did in fact support the policy decision to enact regime change, although there were initially conflicting reports.

### **Brazil**

The final case in this study is the 1964 Brazilian coup d’état, which ended in the overthrow of President João Goulart on April 1, 1964. Goulart’s presidency was followed closely by the US, wary of Communist influence in Latin America after the events in Cuba in 1961. A Special NIE published in December 1961 (only months after Goulart took office) assessed the prospects of a Goulart administration through October

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<sup>49</sup> US Department of State, “Memorandum From the Board of National Estimates to the Director of Central Intelligence (Dulles),” Aug. 22, 1960, in FRUS, 1958-1960, Africa, Volume XIV, p. 441, accessed <https://history.state.gov/historicaldocuments/frus1958-60v14/d187>.

<sup>50</sup> CIA, “Telegram From the Central Intelligence Agency to the Station in the Congo,” August 27, 1960, in FRUS, 1964-1968, Volume XXIII, Congo, 1960, accessed <https://history.state.gov/historicaldocuments/frus1964-68v23/d14>.

1962. While the NIE noted Goulart's Communist sympathies and the presence of avowed Communists in high government posts, it is also stated that "it is unlikely that Communist infiltration of the government will go so far as to give the Communist Party a significant influence on the formulation and execution of policy within the period of time of this estimate."<sup>51</sup> Here, the initial assessment of Goulart described him as problematic, but not a high threat to any US interests. Another Special NIE from February 1963 presented similar views. The estimate again noted that Goulart had known associations with Communists, but stated "there is little reason to believe that he is dedicated to a radical transformation of Brazilian society or to a radical reorientation of Brazil's foreign policy."<sup>52</sup> The authors also said that Goulart kept moderates among his advisers as well. At this juncture, Goulart, though known to have ties to Communism, was not seen as a major threat likely to lead his country to make strong ties with the USSR. The worries about the growth of Communist factions in Brazil, however, continued to develop, and the intelligence agencies kept a close eye on their activities.

Examination of intelligence analysis in 1963 shows how closely the US was following developments in Brazil. The President's Daily Checklist (PDB) from April 4, 1963 noted that Communists were in a strong position to take control of labor organizations in Brazil.<sup>53</sup> A PDB on September 27 described strong "leftist" pressures being placed on Goulart to remove an ardent anti-communist from a high ranking

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<sup>51</sup> CIA, Special National Intelligence Estimate, "Short-Term Prospects for Brazil Under Goulart," Dec. 7, 1961, CIA FOIA Reading Room, accessed [https://www.cia.gov/library/readingroom/docs/DOC\\_0000008146.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0000008146.pdf).

<sup>52</sup> CIA, Special National Intelligence Estimate, "Character of the Goulart Regime in Brazil," Feb. 27, 1963, CIA FOIA Reading Room, p. 2, accessed [https://www.cia.gov/library/readingroom/docs/DOC\\_0000013622.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0000013622.pdf).

<sup>53</sup> CIA, "The President's Intelligence Checklist," April 4, 1963, CIA FOIA Reading Room, accessed [https://www.cia.gov/library/readingroom/docs/DOC\\_0005996277.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0005996277.pdf).



military post, though it also assessed that Goulart would likely not do so.<sup>54</sup> As the political situation heated up in March 1964, a PDB assessed that leftist support was “coalescing” behind Goulart as the President attempted to push radical reforms through congress.<sup>55</sup> Brazil descended into political chaos as anti-Goulart groups banded together in attempts to oust him. As described in the PDB from March 30, it was then “evident that Brazil’s clamorous left-wing gained ground from last week’s bizarre episode,” going on to say “personnel changes made by Goulart after the incident are described by Embassy Rio as ‘Gifts to the leftists.’”<sup>56</sup> Before being cut off by redaction, a PDB from March 31 stated “All this plays into Communist Hands,” when detailing the actions of Goulart in the middle of the political crisis.<sup>57</sup> On that same day, President Johnson authorized officials to move military assets in order to support Brazilian forces attempting to overthrow Goulart.<sup>58</sup> In this case, there is evidence that intelligence analysis reported ties of Goulart to known Communists, but did not assess it as a major threat to US interests. Moreover, we do not see any analysis that there were more favorable alternatives to Goulart.

## **Discussion**

After undertaking the series of case studies, the hypothesis that intelligence analysis had little influence on policy making during the Cold War was proven incorrect.

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<sup>54</sup> CIA, “The President’s Intelligence Checklist,” September 27, 1963, CIA FOIA Reading Room, accessed [https://www.cia.gov/library/readingroom/docs/DOC\\_0005996580.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0005996580.pdf).

<sup>55</sup> CIA, “The President’s Intelligence Review,” March 18-20, 1964, CIA FOIA Reading Room, accessed [https://www.cia.gov/library/readingroom/docs/DOC\\_0005996904.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0005996904.pdf).

<sup>56</sup> CIA, “The President’s Intelligence Checklist,” March 30, 1964, CIA FOIA Reading Room, accessed [https://www.cia.gov/library/readingroom/docs/DOC\\_0005959061.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0005959061.pdf).

<sup>57</sup> CIA, “The President’s Intelligence Checklist,” March 31, 1964, CIA FOIA Reading Room, accessed [https://www.cia.gov/library/readingroom/docs/DOC\\_0005959063.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0005959063.pdf).

<sup>58</sup> White House Audio Tape, President Lyndon B. Johnson discussing the impending coup in Brazil with Undersecretary of State George Ball, March 31, 1964, National Security Archive, accessed <http://nsarchive.gwu.edu/NSAEBB/NSAEBB118/>.

In the majority of cases, the intelligence analysis presented to the executive was largely in line with the ultimate policy outcome. Based on the understanding of the intelligence cycle established in the literature review, this demonstrates that intelligence analysis was likely able to have influenced policy making in these instances.

In the case of Iran (1953), there is a lack of availability in data between January and July 1953; therefore we are left to believe that Eisenhower was utilizing the intelligence analysis already provided in the end of the Truman administration. Working under this assumption, we see that two presidents, presented with the same intelligence analysis, chose different policies. During the Truman administration, given the assessment that Iran was not under imminent threat of Communism, a policy of enacting regime change, though considered, was not undertaken. This proves as evidence against the original hypothesis. In the case of Iran during the Eisenhower administration, none of the data available meets any of the measures set for proving that the analysis informed the policy decision to enact regime change during the Eisenhower administration, thus serving as evidence for the hypothesis.

The case of Guatemala (1954) stands in contrast to that of Iran under the Eisenhower administration. There were assessments of high confidence that the Arbenz regime posed a threat to US interests, was already under Communist influence, and that there were few, if any, alternatives to Arbenz that would be able to ascend without US assistance. Thus, the data examined in this case demonstrates evidence against the hypothesis – the intelligence analysis may in fact have influenced the policy decision to enact regime change in Guatemala. The same can be said for the fourth case, the Republic of the Congo in 1960. Although there were at first differing opinions on the

threat posed by Lumumba from the State Department and CIA, any disagreements were resolved, as seen in the memorandum from the head of the Board of National Estimates to the head of the CIA.<sup>59</sup> Not only was Lumumba seen as a threat to US interests, other parties within the country were identified as favorable alternatives. In each of these cases, the ties of the regimes in power to Communism were assessed with high confidence in the intelligence analysis. These are the clearest examples of intelligence analysis assessing the regimes in power as a threat to US interests.

The case of Brazil is perhaps the least clear. In the intelligence analysis examined, there are clear indications that Goulart appointed Communists to high posts in his government (similar to the analysis on Guatemala), but the assessments expressed no alarm at this, as Goulart was not believed to be loyal to any political ideology.<sup>60</sup> Moreover, none of the data presented any fears that Brazil would imminently fall to Communism. It was not until the month leading up to the eventual coup that the intelligence analysis regarding Goulart showed a heightened sense of worry. In this regard, the intelligence analysis did present concerns that the Communists held strength beyond their numbers and may have been able to begin exerting political influence. This analysis must be taken as evidence against the hypothesis. Unfortunately for this study, much of the data still suffers from heavy redaction. It is possible that the analysis offered assessments of alternatives to the Goulart regime that the US could have supported to usurp him in the time of political turmoil, providing another means to measure the data. However, this is only speculation. What seems to have ultimately pushed the decision to

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<sup>59</sup> US Department of State, "Memorandum From the Board of National Estimates to the Director of Central Intelligence (Dulles)," Aug. 22, 1960, in FRUS, 1958-1960, Africa, Volume XIV, p. 441, accessed <https://history.state.gov/historicaldocuments/frus1958-60v14/d187>.

<sup>60</sup> CIA, Special NIE, "The Character of the Goulart Regime in Brazil," Feb. 27, 1963, CIA FOIA Reading Room, p. 2, accessed [https://www.cia.gov/library/readingroom/docs/DOC\\_0000013622.pdf](https://www.cia.gov/library/readingroom/docs/DOC_0000013622.pdf).

oust Goulart was an extensive cable from the US Ambassador in Brazil, Lincoln Gordon, to the Secretary of State, Director of the CIA, and the Secretary of Defense (among others) assessing the political crisis in Brazil. In this cable, dated March 28, 1964, the Ambassador explicitly states his belief that Goulart had strong ties to Communism and posed a threat to US interests. Ambassador Gordon suggested a number of means for the US to support the anti-Goulart forces, naming Brazilian General Branco as a competent, trustworthy leader to support in the effort.<sup>61</sup> This cable, however, was not used as data in this study because it is not a finished intelligence analysis product. It did not undergo the full intelligence cycle, as did the other data used in this study.<sup>62</sup> In summation, because there were indications in the intelligence analysis in the final days before Goulart was deposed that Communist factions were indeed liable to oust the President, enough of the data met the measures set for this study as evidence against the hypothesis. Thus, the case of Brazil is ultimately evidence against the hypothesis.

The initial hypothesis, that intelligence analysis had little ability to influence policy, appears to be unsupported. The majority of evidence in this research shows that intelligence analysis met the measures set to demonstrate that it aligned with, and therefore likely informed the policy decision to enact regime change. This finding does not discredit the theories that led to the hypothesis. The theory that the US was so gripped by the fear of Communism remains true, and intelligence analysts and policy makers may have been poised to see regimes with leftist sympathies as more at risk of falling under Communist influence than they were in reality. This can be seen in the case

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<sup>61</sup> US Department of State, "Telegram from the Ambassador to Brazil (Gordon) to the Department of State," March 28, 1964, in FRUS, 1964-1968, Volume XXXI, South and Central America; Mexico, accessed <https://history.state.gov/historicaldocuments/frus1964-68v31/d187>.

<sup>62</sup> This document also revealed covert efforts at undermining the Goulart regime.

of Brazilian President Goulart, who was known to make political ties largely for self-serving purposes, not for ideological reasons. This was the assessment of much of the data studied in the years preceding the coup, but these assessments were cast aside when Goulart turned to the Brazilian Communist Party for support in the face of a coup (before the US officially sent support for the anti-Goulart forces).

The hypothesis was correct in one instance, the case of Iran (1953) under the Eisenhower administration. While clearly there were worries that Mossadeq may turn to the Tudeh (Communist) Party for support, there was no piece of evidence that assessed with confidence that any ties had actually been made. While intelligence analysis did not meet the measures set for proving it informed policy, it was in fact the tone of advisors close to Eisenhower that strongly influenced his decision-making regarding the Communist threat in Iran. John Foster Dulles (Secretary of State) admitted to hyperbolizing the threat of communism to Eisenhower.<sup>63</sup> Additionally, a Tudeh Party specialist at the time of the coup reported that high-level US officials “routinely exaggerated [the Tudeh’s] strength and Mosadeq’s reliance on it.”<sup>64</sup> This information supports the theory that at times, policymakers may ignore or reject intelligence analysis that doesn’t support their views or their own analysis.<sup>65</sup>

In most of the cases, intelligence analysis presented to the executive shows high correlation with the ultimate policy outcome. This research adds a layer of depth to the scholarly work done in the field of Cold War political history as it provides an

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<sup>63</sup> See Byrne, “Road to Intervention”, 219.

<sup>64</sup> Mark Gasiorowski, “Coup d’Etat Against Mosaddeq” in *Mohammed Mosaddeq and the 1953 Coup in Iran*, ed. Mark Gasiorowski and Malcolm Byrne (Syracuse, NY: Syracuse University Press, 2004), footnote 8.

<sup>65</sup> Stephen, Marrin, “Why Intelligence Analysis has Limited Influence on American Foreign Policy,” APSA 2014 Annual Meeting Paper, 2014, available at SSRN: <https://ssrn.com/abstract=2451923>.

assessment of the analysis policy makers were provided with regarding regimes that were determined averse to US interests at the time. The findings also interact with one of the few comprehensive works regarding the question of intelligence analysis' ability to impact policymaking, advanced by former CIA analyst Stephen Marrin.<sup>66</sup> Marrin contends that strategic intelligence analysis has little ability to influence policy, and further suggests that there is too high an expectation (informed by the standard model of the intelligence cycle) from scholars that it should. Among other reasons, Marrin posits that policymakers often perform the analysis function on their own and find intelligence analysis from agencies as duplicative or unnecessary – they only want the raw information. Marrin's thesis and underlying theories may explain why, in the case of Iran, Eisenhower chose to enact regime change when the strategic intelligence did not support such an action. However, the other cases in this paper provide some evidence against Marrin's central hypothesis and warrant further examination to determine why policymakers accepted this intelligence, and if they had a tendency to reject at other times. Much of Marrin's supporting evidence comes from the Vietnam War and after, and further analysis should be conducted to determine if the patterns of disconnect that Marrin cites existed prior to that time period.

The conclusions reached open the door for further research on the subject, perhaps conducting more case studies on other instances where the US enacted regime change in foreign countries. The scope of this paper presented an opportunity to study the effects of intelligence analysis on only one identifiable Cold War policy, regime change, which became very common during the Cold War after the first successful US backed

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<sup>66</sup> Stephen, Marrin, "Why Intelligence Analysis has Limited Influence on American Foreign Policy," APSA 2014 Annual Meeting Paper, 2014, available at SSRN: <https://ssrn.com/abstract=2451923>.

coup that ousted Mosadeq. The conclusions reached are a valuable addition to the field of intelligence studies, as they address a question that was identified as under-researched, yet vitally important. There is also an opportunity to study whether intelligence is able to inform other policies, an effort that would be another significant addition to the field of intelligence studies. A study following the same research design but expanded beyond this particular Cold War policy would have implications for improving intelligence analysis to better inform policy makers, thus improving the intelligence cycle.

### **Conclusion**

This paper set out to answer the question of how (US) intelligence analysis influenced the Cold War policy of enacting regime change in foreign countries. In this endeavor, it was determined that the purpose of intelligence analysis is to inform the policy maker of threats to national security, and assess what level of risk these threats pose. With this information, a study was undertaken to determine whether intelligence analysis did in fact provide reason for the policy makers to believe that enacting regime change was necessary to protect US interests. A hypothesis was formed that intelligence analysis had little ability to influence policy. After comparing case studies of countries where regime change took place, this hypothesis was proven incorrect. The majority of intelligence analysis on countries where a regime was deposed by a US backed effort provided assessments that the regime in question was under imminent threat of falling to Communism, was already linked to Communism, or directly threatened US interests. However, the case of the 1953 Iranian Coup d'état under the Eisenhower administration did fall in line with the hypothesis, as none of the measures set for proving that intelligence analysis did inform policy were met.

This study has demonstrated that during the Cold War, intelligence analysis appears likely to have influenced the policy to enact regime change in foreign countries. This conclusion, however, is limited to only the case studies undertaken. As there was not an overwhelming majority of evidence, a larger study should be conducted. Unfortunately, due to the nature of the subject, much of the data for other potential cases where the US enacted regime change remains classified. It would also be useful to supplement this study with another that assesses each President's relationship with the intelligence apparatus conducting analysis. By conducting broader research on the interaction between the national security policy-making apparatus (including the president) and the intelligence analysis presented to it, the conclusions in this paper will be strengthened as data of direct influence on policy making may be determined. Because this research paper was limited in its scope and length, a larger research effort was unfeasible. The conclusions reached in this paper, however, still stand. Intelligence analysis during the Cold War was largely consistent with the enacted policy decisions in the Cold War and seems to have been able to influence the ultimate policy decisions implemented.



## **Chapter 2: The Development of Violent Non-State Actors' Intelligence Functions**

### **Introduction**

Following the collapse of the Soviet Union in the early 1990s, the study of non-state actors and their role in the international order gained traction. While non-state actors have long been present, the rise of globalization thrust them into the fore of academic research on international security.<sup>67</sup> This is evidenced by the broad literature examining the role of non-governmental organizations (NGO), multi-national corporations (MNC), and international organizations (IO).

Concurrent with this academic trend was the emergence of violent non-state actors (VNSA) as key international players. As globalization increased and fears about the diminishing strength of the traditional state rose, VNSAs usurping power in areas of weak governments has received increased international attention.<sup>68</sup> While there is a substantial literature on these groups and their rise to prominence, it is often regionally focused and mostly fixated on how best to combat them. This paper seeks to fill a gap in the existing literature, specifically examining VNSA's intelligence functions and how they have developed over the past two decades.

The term "intelligence functions" refers to any intelligence activities of VNSAs that closely resemble those of sovereign states, such as the activities of the intelligence community in the United States. These activities include intelligence collection and analysis for the purpose of avoiding strategic surprise, providing long-term expertise,

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<sup>67</sup> Robert J. Bunker, "Defeating Violent Nonstate Actors," *Parameters: U.S. Army War College* 43.4 (2013): 57-65.

<sup>68</sup> These VNSAs can take many forms, labeled variously as terrorist groups, insurgents, narco-traffickers, and more. Annette Idler and James Forest, "Behavioral Patterns among (Violent) Non-State Actors: A Study of Complementary Governance," *Stability: International Journal of Security & Development*, 4(1): 2, pp. 1-19,.

maintaining internal security (counterintelligence or CI), military intelligence, and carrying out covert action.<sup>69</sup> The timeline to be studied is important because of the increased role VNSAs have played in international relations during this time and because of the proliferation of technology previously available only to governments. For example, increased global Internet availability allows for unrestricted access to commercial imagery, provides encrypted communications, and creates other means for open source intelligence activities. These developments may have had a distinct impact on VNSAs' ability to undertake intelligence activities, but the question remains unexamined. Tracking these developments are key to expanding our understanding of VNSAs and may point to the reason why some have survived for such long durations. Moreover, understanding the intelligence functions of VNSAs today will highlight how they focus their efforts both internally and externally.

The first section of this paper examines the definition and implementation of intelligence as seen by state actors, the intelligence functions of various VNSAs prior to the timeline examined, and outlines key developments in intelligence functions for state actors that we may expect to see from VNSAs. A series of case studies follows, focusing on the intelligence functions of three groups: Al Qaeda, Islamic State in Iraq and the Levant (ISIL), and the Provisional Irish Republican Army (PIRA). The final section summarizes the key findings of this study and discusses implications for further research.

### **Literature Review**

In order to understand the intelligence function of non-state actors, the concept of intelligence must first be defined. There is no single, widely accepted definition of

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<sup>69</sup> Mark M. Lowenthal, *Intelligence: From Secrets to Policy*, sixth ed. (Los Angeles: CQ Press, 2015), p. 3-6.

intelligence, but key concepts of intelligence are well established in the field of intelligence studies. With slight variations in the definitions in some sources, intelligence serves to provide policy makers with information to warn about current threats. Intelligence can then inform decision-making and aid the policy process.<sup>70</sup> To achieve these functions, state intelligence agencies carry out core activities: internal security; collection; analysis, counterintelligence; and covert action.<sup>71</sup> Therefore, the intelligence functions of VNSAs are defined as activities carried out by VNSAs that mirror those of states' intelligence agencies. The history of insurgent groups prior to the past two decades shows certain parallels between VNSAs and states' intelligence activities, and also highlights key differences.

Prior to the end of the Cold War, literature on VNSAs is limited. When it does exist, studies are largely focused on insurgent groups fighting against colonial rule, with some VNSAs succeeding to achieve statehood or semi-statehood.<sup>72</sup> Nonetheless, older examples of guerrilla and insurgent groups undertaking intelligence activities exist.

Human intelligence, signals intelligence (SIGINT), counterintelligence, and even covert actions (including propaganda) have been used by VNSAs throughout history.

Understanding the historical application of these activities by VNSAs will help to inform the ways in which their intelligence activities have developed over the past two decades.

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<sup>70</sup> Lowenthal, *Intelligence: From Secrets to Policy*; Richard K. Betts, *Enemies of Intelligence: Knowledge and Power in American National Security* (New York: Columbia University Press, 2007), p. 30; Loch Johnson, *National Security Intelligence*, p. 15; Peter Gill and Mark Pythian, *Intelligence in an Insecure World* (Cambridge, UK: Polity, 2006), p. 7; and Gregory F. Treverton, *Intelligence for an Age of Terror* (New York: Cambridge University Press, 2009).

<sup>71</sup> John A. Gentry, "Toward a Theory of Non-State Actors' Intelligence," *Intelligence and National Security*, 31:4 (2016), 468.

<sup>72</sup> Martin Thomas, "Insurgent Intelligence: Information Gathering And Anti-Colonial Rebellion," *Intelligence & National Security* 22.1 (2007): 155-163.

Human intelligence (HUMINT)—the collection of information from human sources—is one of the most pervasive intelligence activities used by VNSAs.<sup>73</sup> VNSAs have used HUMINT as a central piece of their intelligence activities partly because it is a cheap and effective means of collecting information. HUMINT can serve a number of purposes, with agents of an insurgent force acting as informants, watchmen, cartographers, and even local guides.<sup>74</sup> Some VNSAs have even penetrated the states they are fighting against with human agents, including in the case of the Provisional Irish Republican Army (PIRA).<sup>75</sup> The prevalence of HUMINT among VNSAs can likely be attributed to its low cost and simplicity relative to technical means of intelligence collection. Additionally, many VNSAs are formed around a certain ideology, with sympathizers bound to exist somewhere in the general population that the VNSA is operating in. These willing agents may offer their services to the cause of the VNSA, or alternatively non-willing individuals may be forced to comply out of necessity or fear.<sup>76</sup>

In addition to an extensive HUMINT apparatus, the PIRA was known to conduct SIGINT collection on the British security forces, utilizing off-the-shelf technology to identify and intercept radio communications of British security forces.<sup>77</sup> However, this sophisticated means of collection was not used extensively by VNSAs.<sup>78</sup> It is costly, technologically sophisticated, and not especially useful for those VNSAs that operate over larger areas. It is more pertinent for these groups to subvert the SIGINT collection of their adversaries, a key aspect of VNSA counterintelligence measures.

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<sup>73</sup> John A. Gentry, “Toward a Theory of Non-State Actors’ Intelligence,” 484.

<sup>74</sup> Robert Taber, *War of the Flea: The Classic Study of Guerrilla Warfare* (Washington D.C., Brassey’s, 2002), 32.

<sup>75</sup> Eamon Collins and Mick McGovern, *Killing Rage* (New York: Granta Books, 1999).

<sup>76</sup> Robert Taber, *War of the Flea: The Classic Study of Guerrilla Warfare*, 12.

<sup>77</sup> Joe Ilardi Gaetano, “IRA Operational Intelligence: The Heartbeat of the War,” *Small Wars & Insurgencies*, 21:2 (2010), 342.

<sup>78</sup> *Ibid.*

Counterintelligence is perhaps the paramount intelligence function of VNSAs, and has even been considered the most important intelligence activity for their survival.<sup>79</sup> States' counterintelligence activities are aimed at protecting internal intelligence operations from hostile nations. This role is often assumed by law enforcement or other domestic security agencies, such as the FBI in the United States or MI5 in the United Kingdom. Some terrorist groups such as the PIRA had dedicated counterintelligence officers and units.<sup>80</sup> VNSAs have been observed as having an intrinsic counterintelligence function, with members instinctively acting as CI officers out of necessity for protecting themselves.<sup>81</sup> Certain groups have natural CI vetting procedures through indoctrination practices, e.g. proving one's faith in order to join the group.<sup>82</sup> Another important counterintelligence activity is subverting detection, both physically and in communications. VNSAs are known to use code when speaking over the phone or in passing written communications, and also to disguise themselves by blending in with the local populace when traveling.<sup>83</sup> Effective counterintelligence activities are vital to the survival of VNSAs, as they are often outmatched by states' intelligence capabilities.

Covert action is another intelligence activity that is traditionally utilized by VNSAs, though often on a smaller scale than that of state actors. Covert actions (CA) are defined as activities that are designed to influence "political, economic or military

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<sup>79</sup> Joe Ilardi Gaetano, "Irish Republican Army Counterintelligence," *International Journal of Intelligence and CounterIntelligence*, 23:1 (2009), 13-14.

<sup>80</sup> Joe Ilardi Gaetano, "Irish Republican Army Counterintelligence," *International Journal of Intelligence and CounterIntelligence*, 23:1 (2009), 13-14.

<sup>81</sup> J. Bowyer Bell, *The IRA, 1968-2000*, New York: Taylor and Francis, 2013.

<sup>82</sup> Joe Ilardi Gaetano, "Al-Qaeda's Counterintelligence Doctrine: The Pursuit of Operational Certainty and Control," *International Journal of Intelligence and CounterIntelligence*, 22:2 (2012), 246-274.

<sup>83</sup> Ibid, and Taber, 13.

conditions abroad.”<sup>84</sup> CAs undertaken by states are also intended to be non-attributable or at least provide a layer of plausible deniability.<sup>85</sup> For VNSAs, the most prevalent form of CAs for VNSAs is propaganda campaigns, which can be knowingly or unknowingly directed by the VNSA. For insurgents or guerrillas fomenting insurrection, waging a propaganda war is a central component of any effort.<sup>86</sup> Mao Tse-tung was well known for his use of propaganda during his guerrilla campaign against the Kuomintang, among other intelligence activities. Guerrillas and insurgents seeking to ingratiate themselves with the local populace do so by propagandizing, convincing the civilians and perhaps even elements within their adversary’s forces that the enemy’s cause is unjust.<sup>87</sup> Mao also provides us with an example of a covert action on a much larger scale—the guerrilla leader at one point pledged his Communist forces’ allegiance to the enemy, only to use the funds and materiel received in return to prepare for later battles when the alliance broke down.<sup>88</sup> Larger scale CAs typically undertaken by states’ intelligence agencies such as enacting or instigating coups and conducting economic warfare are not typically seen in the activities of VNSAs.<sup>89</sup>

The major differences between the intelligence activities of states and VNSAs are important. First, VNSAs often exhibit a lack of intelligence analysis. The analytical function of a state’s intelligence activities is often very robust and vitally important.

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<sup>84</sup> “United States National Security Act of 1947,” As Amended by P.L. 110–53, Enacted August 3, 2007, at <https://www.ncsc.gov/training/resources/nsaact1947.pdf>.

<sup>85</sup> Lowenthal, 241.

<sup>86</sup> Taber, 24.

<sup>87</sup> Francis Fuller, “Mao Tse Tung: Military Thinker,” *Military Affairs*, 22:3 (1958), p. 145.

<sup>88</sup> Fuller, “Mao Tse Tung: Military Thinker,” 143-145.

<sup>89</sup> Terrorist attacks are not considered as covert actions in this paper. Terrorism as a whole is aimed at influencing the population and policies of target countries. Because of their status, terrorist groups act covertly in every action they take. Therefore, considering every action terrorists take and every attack they carry out is not useful for the purposes of this paper. Instead, the paper focuses more precisely on the specific intelligence activities that terrorist groups and other VNSAs utilize.

Collected intelligence goes through a rigorous process before it is ultimately presented to policy makers, and it provides an extra layer of value to the recipient through its timeliness, contextual information, added insights and estimative information. The analytical function is performed by scores of individual analysts who are subject matter experts and have dedicated their professional careers to their practice.<sup>90</sup> This particular function of a state's intelligence apparatus is likely difficult to replicate for a stateless actor who claims a weaker budget and a far smaller population to draw analysts from.

Second, singular leaders or small leadership groups often lead VNSAs with their own strategic vision, thereby removing the need for strategic and estimative intelligence aimed to inform the policy maker (as seen in state actors).<sup>91</sup> When motivated by religious ideology, however, VNSAs may remove the need for strategic intelligence altogether.<sup>92</sup> Though a recent trend for state actors has been to focus on current over estimative intelligence, states intelligence agencies still produce long-term intelligence estimates that are made available to senior policy makers. The same activities have not been observed in the intelligence activities of VNSAs. The intelligence analysis function of states also focuses on a number of issues, meticulously prioritized by complicated frameworks intended to maximize effectiveness.<sup>93</sup> There is simply no parallel to this identified in the literature on VNSAs.

Examining the major developments in states' intelligence activities reveals further disconnect with VNSAs' intelligence functions. Great technological advances made over

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<sup>90</sup> Lowenthal, 150-161, and Robert M. Clark, *Intelligence Analysis: a Target-centric Approach*, Los Angeles: SAGE/CQ Press, 2013.

<sup>91</sup> Gentry, 472.

<sup>92</sup> J. Bowyer Bell, 'The Armed Struggle and Underground Intelligence: An Overview', *Studies in Conflict and Terrorism*, 17/2 (1994) p.121 –126.

<sup>93</sup> Lowenthal, 74-76.

the past half-century were driven by the needs of states' intelligence agencies. Major technological developments such as remote sensing capabilities and SIGINT collection platforms were a sea change for states' intelligence activities. These advances have led to an increased reliance on technology from states that we might not expect from VNSAs who have inferior resources. Expensive collection platforms are often developed or subsidized by states that retain sole use of the imagery or any other intelligence collected. Large-scale covert actions also require substantial funding. As technologies such as satellites and communications monitoring emerged as means for states' intelligence agencies during the Cold War, VNSAs have not been seen using these methods during the same time period because of their high cost. However, it is unclear at present if the recent proliferation of technologies and information such as the Internet, commercial satellite imagery, handheld recording devices, or others has led to an increased intelligence application on the part of VNSAs.

Another intelligence activity trend for state actors is the increased use of open source intelligence (OSINT).<sup>94</sup> Whereas many countries were once considered closed off from the world, very few areas today are not open. Vital intelligence can be collected from a number of open sources such as social media and international news outlets accessible from anywhere. The Internet is a trove for open source collection of everything from scholarly articles to financial information from large corporations. OSINT collection is now a key function for many states' intelligence agencies, with some such as the United States establishing distinct centers for the function.<sup>95</sup>

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<sup>94</sup> Lowenthal, 138.

<sup>95</sup> CIA Historical Document, "Establishment of the DNI Open Source Center," November 8, 2005, Central Intelligence Agency, accessed 3/25/17, <https://www.cia.gov/news-information/press-releases-statements/press-release-archive-2005/pr11082005.html>



In defining the intelligence activities of states, it is evident that VNSAs indeed exhibit intelligence functions and have historically mirrored some of the intelligence activities of states. There are also significant differences in how states and VNSA's intelligence functions operate. The gap left to fill in the literature on VNSAs is how their intelligence functions have developed over the past two decades, as access to technologies once considered exclusive to states has grown. Additionally, it is unclear if any developments mirror the trends seen in states' intelligence functions. As technology has proliferated, we may expect that VNSAs will learn to use what is available to them. For example, while a VNSA is unlikely to be able to launch its own satellite, it may make use of publicly available imagery for planning operations. This notion informs the hypothesis of this paper: VNSAs intelligence functions have developed over the past two decades in a similar way to that of states, but delayed.

### **Theory and Hypothesis**

The hypothesis of this paper is that VNSAs intelligence functions have developed over the past twenty years in a similar way to those of states, only with a delay. The hypothesis is informed by several theories. First, the proliferation of certain technologies now allows anyone to collect intelligence in ways that were once exclusive to states intelligence agencies (e.g. using a drone for reconnaissance). Because of this technology access, VNSAs may now behave more like states when collecting intelligence. Second, as more information becomes available to study the intelligence functions of states via open source research, VNSAs may model their own intelligence functions after states' agencies. Similarly, there are instances where individuals trained by state intelligence agencies join VNSAs and use their training to help formalize VNSA intelligence

functions. By examining more recent examples of VNSA's uses of intelligence, this paper tests this hypothesis to determine if the supporting theories are founded.

### **Methods**

To answer the research question, three case studies were undertaken: the Provisional Irish Republican Army (PIRA), Al Qaeda, and the Islamic State (ISIL). The data used come from a wide variety of sources including newspaper articles; testimony by former and current VNSA group members; in-depth research of VNSAs; and any available intelligence reporting from state actors. Measuring the independent variable was contingent upon understanding the historical application of intelligence by VNSAs or similar groups as established in the literature review. Therefore, developments in the intelligence function of VNSAs were measured in two ways. First, evidence of the use of new technologies or any other means understood to be previously unavailable to VNSAs for intelligence activities already practiced by VNSAs is considered a significant development. For example, VNSAs are known to use ciphered notes or code words in their communications. A development in this method would be VNSAs using open source encryption technology today.

Second, any evidence of previously unobserved intelligence activities is documented. For example, a VNSA collecting SIGINT when there is no evidence they had done so in the past. Third, developments in VNSAs' intelligence functions are compared to the trends seen in states' intelligence agencies to see if they align. Evidence against the hypothesis includes a lack of developments in the intelligence functions of VNSAs, particularly if the intelligence function existed previously. Evidence against the hypothesis could also include developments that do not mirror the trends seen in the

development of states' agencies. An example of this could be a complete shunning of using technology for intelligence activities.

The case studies were chosen for several reasons. There is a substantial body of literature on these three VNSAs (the PIRA, Al-Qaeda, ISIL). However, most mentions of VNSA intelligence function is contained in passing references. Therefore, the implications are often overlooked. In the cases where the intelligence function is studied, its development is recent and is generally not in-depth. Because the PIRA is the oldest VNSA considered in this chapter, it provides an excellent example of how a single VNSA's intelligence function has adapted over a long time period. Similarly, Al-Qaeda offers a unique perspective as it conducts its operations in a truly global fashion, which inherently requires certain intelligence functions such as strong counterintelligence and covert communications. ISIL, which traces its roots to Al-Qaeda in Iraq, is known for its technological savvy. Closer examination should reveal just how much the group utilizes this savvy for intelligence activities. Lastly, these are three prominent VNSAs that have outlasted many others. Perhaps this is because of their ability to undertake intelligence activities successfully. Examining their intelligence functions may reveal if this has indeed played a role in these groups' longevity.

### **Data**

The following case studies provide any observed developments in the intelligence function of the three VNSAs studied—PIRA, Al-Qaeda, and ISIL. The case studies are divided into two sections. First, each case establishes how each entity used to conduct intelligence gathering prior to the study period. Second, each case then examines how

intelligence functions were developed between 1997 and today. An analysis of the developments or lack of developments will follow in the discussion section.

### **The Provisional Irish Republican Army**

The Provisional Irish Republican Army (PIRA) was established in 1969 as a violent splinter faction of the Irish Republican Army (IRA), a group fighting for the unification of all of Ireland and independence from the United Kingdom. Beginning with a 1997 ceasefire with the United Kingdom and continuing with the Good Friday Agreement of 1998, PIRA decided to lay down its weapons and cease its campaign of violence.<sup>96</sup> There is evidence, however, of ongoing PIRA intelligence activities prior to the completion of the alleged disarmament in 2005.<sup>97</sup> Since then, a smaller splinter group, the Real IRA (RIRA), has carried out incidents of violence. Monitoring of the RIRA by the British and Irish governments has shown the group's continued efforts to enhance its organizational capabilities and evidence of intelligence activities.

In the mid-1970s, PIRA underwent an organizational restructuring that formalized the group's intelligence function. By centralizing leadership and reorganizing its intelligence apparatus, PIRA was able to better strategize and prioritize its collection efforts as well as standardize the procedures for intelligence activities.<sup>98</sup> As a result of the reorganization, the PIRA's intelligence function showed significant improvement. Regimented standards and education of new operatives in surveillance methods led to operational successes in bombings and assassinations. Improvements in SIGINT collection techniques allowed PIRA intelligence teams to monitor police and military

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<sup>96</sup> Blake W. Mobley, *Terrorism and Counter-Intelligence: How Terrorist Groups Elude Detection*, Columbia Studies in Terrorism and Irregular Warfare (New York: Columbia University Press, 2012), p. 25.

<sup>97</sup> Joe Ilardi Gaetano, "IRA Operational Intelligence: The Heartbeat of the War," *Small Wars & Insurgencies*, 21:2 (2010), 343.

<sup>98</sup> Mobley, *Terrorism and Counter-Intelligence: How Terrorist Groups Elude Detection*, 40.

radios, even intercepting the phone calls of senior members of the British intelligence services.<sup>99</sup> HUMINT collection from the populace remained crucial, but PIRA's processing capabilities grew more structured with time and experience, allowing the most important intelligence to reach local or central leadership quickly. PIRA was even known to utilize open source intelligence collection, including gathering biographical information on assassination targets.<sup>100</sup> Counterintelligence procedures were also strengthened thanks to increased vetting procedures and heightened counterespionage efforts. Moreover, the reorganization of PIRA provided some cover for leadership by isolating them from the rank and file.

Generally, PIRA conducted its intelligence activities in a consistent manner between the 1976 restructure until 1997 ceasefire. During this time period, PIRA continued to rely heavily on the local populace to collect intelligence and it maintained agents in key government offices.<sup>101</sup> The organization also continued routine surveillance procedures, though targeting capabilities improved.<sup>102</sup> Since the ceasefire, there is little evidence of significant developments in PIRA's intelligence function. There is evidence, however, that PIRA retained an active intelligence collection system. For example, in March 2002, PIRA operatives infiltrated the Castlereagh Special Branch headquarters and stole numerous documents and encrypted computer disks that included the names and addresses of more than 250 members of the Special Branch, code names of informers, and the information they provided to the security services.<sup>103</sup> A month later,

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<sup>99</sup> Gaetano, "IRA Operational Intelligence: The Heartbeat of the War," 342.

<sup>100</sup> Mobley, 46.

<sup>101</sup> Gaetano, "IRA Operational Intelligence: The Heartbeat of the War," 343.

<sup>102</sup> Ibid.

<sup>103</sup> Joe Ilardi Gaetano, "Irish Republican Army Counterintelligence," *International Journal of Intelligence and CounterIntelligence*, 23:1 (2009), 20; and Kevin Meyers, "The War in Ulster is Over. The IRA Just

an IRA database was discovered in Belfast that included details on army bases in Britain as well as a list of senior political figures with general details about them (it is believed that the list was not informed by the intelligence collected during the Castlereagh break-in).<sup>104</sup> While these incidents do not reveal a dramatic development of PIRA's intelligence function, it does indicate that the group's intelligence function remained active and maintained a certain level of technical competency. It is also argued the continuation of intelligence activities was "a concession to stop hardliners within its ranks from joining the splinter group, the Real IRA."<sup>105</sup>

In 1997, RIRA was formed as a dissident group within PIRA, rejecting the ceasefire and PIRA's support of the Good Friday Agreement.<sup>106</sup> RIRA unleashed a string of violence soon after their formation, including the detonation of a bomb in Omagh, Northern Ireland, killing 29 and injuring hundreds. RIRA remains active today, and has been observed trying to strengthen its forces and capabilities over the years. While there is little data available on the group, the Independent Monitoring Commission (a group established by the British and Irish governments in 2004 in part to monitor the continuing activities of paramilitary groups), has noted that in 2009 RIRA "continued to target people, primarily members of the security forces, and to seek to gather intelligence...Overall, there was a continued high level of covert activity."<sup>107</sup> In their

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Won," April 14, 2002, *The Age*, accessed 3/25/17, <http://www.theage.com.au/articles/2002/04/13/1018333431293.html>.

<sup>104</sup> Nicholas Watt and Nick Hopkins, "The IRA Has Target List of Tories – Police," April 19, 2002, *The Guardian*, accessed 3/25/17, <https://www.theguardian.com/uk/2002/apr/20/northernireland.conservatives>.

<sup>105</sup> Ibid.

<sup>106</sup> Colleen Sullivan, "Real Irish Republican Army," *Encyclopedia Britannica (online)*, March 24, 2017, accessed March 25, 2017, <https://www.britannica.com/topic/Real-Irish-Republican-Army>.

<sup>107</sup> Independent Monitoring Commission, "Twenty-Second Report of the Independent Monitoring Commission," Printed November 4, 2009, 14, accessed 3/25/17, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/248118/1085.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/248118/1085.pdf).

second to last report before ceasing operations, the commission wrote of RIRA's intelligence activities:

Others targeted were people whom dissidents suspected were involved in antisocial behaviour; for example, in April a journalist in Belfast was given a list of ten names and addresses, at all of which hoax devices were subsequently found. Behind targeting of this kind lies extensive intelligence gathering.<sup>108</sup>

While there is little detail on the formal organization of RIRA's intelligence function and the technical sophistication of its collection efforts, it is clear the group is active in intelligence activities.

### **Al-Qaeda**

In 1988, Al-Qaeda was formed by Osama Bin Laden and his associates as a multi-national Salafi jihadist group. Al-Qaeda was based on Bin Laden's experience fighting against the Soviet Union in Afghanistan.<sup>109</sup> Throughout its existence, Al Qaeda has received varying levels of support from states and other non-state groups. This includes the Sudanese government, and the Taliban in Afghanistan. Generally, Al-Qaeda has been able to draw upon these relationships to build its intelligence function. For example, it received training and equipment from the Sudanese intelligence services and military.<sup>110</sup> From its early days, Al-Qaeda's leadership emphasized the importance of intelligence and had several high-ranking members well versed in tradecraft.<sup>111</sup> Al-Qaeda has

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<sup>108</sup> Independent Monitoring Commission, "Twenty-Fifth Report of the Independent Monitoring Commission," Printed November 4, 2010, 7, accessed 3/25/17, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/247589/0565.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/247589/0565.pdf).

<sup>109</sup> Jessica M. Huckabey, and Mark E. Stout, "Al Qaida's Views of Authoritarian Intelligence Services in the Middle East," *Intelligence & National Security* 25, no. 3 (2010): 327, *International Security & Counter Terrorism Reference Center*; and Mobley, *Terrorism and Counterintelligence*, 86.

<sup>110</sup> Mobley, 87-93.

<sup>111</sup> Gaetano Joe Ilardi, "Al-Qaeda's Counterintelligence Doctrine: The Pursuit of Operational Certainty and Control," *International Journal of Intelligence and CounterIntelligence*, 22:2 (2009), 246-274.

demonstrated an impressive aptitude for intelligence activities, even while engaged in a decade-long battle with the world's foremost intelligence agencies.

From its inception until 1996, when Bin Laden formally declared his fatwah against the United States, Al Qaeda utilized several intelligence activities in pursuit of its organizational goals.<sup>112</sup> In this early period, Al Qaeda's organizational structure was hierarchical and tightly controlled by the top leadership. The intelligence functions included an entire branch of operatives directly under Bin Laden's command. Al Qaeda operatives were well trained in surveillance and intelligence-gathering techniques, scouting potential targets for attacks, taking photographs, and even developing the film themselves.<sup>113</sup> Dedicated intelligence officers were placed in the group's terror cells abroad.<sup>114</sup> Additionally, Abu Omar, a high-ranking al Qaeda member who previously served in the Egyptian military, trained many operatives in intelligence gathering. After immigrating to the United States, Abu Omar enlisted in the US Army and was stationed at Fort Bragg.<sup>115</sup> Using training manuals he stole while working at Fort Bragg, Abu Omar likely authored numerous terrorist-training manuals used by Al Qaeda members throughout the world.<sup>116</sup>

Al Qaeda also utilized covert action in its early years, showing a proclivity for disseminating propaganda. For example, beginning in 1994, Al Qaeda began sharing its message in the *Jihad* magazine and published a weekly newspaper called *Nashrat al*

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<sup>112</sup> A fatwah is an Islamic ruling or legal opinion given by a recognized authority, see "Al Qaeda: Declarations & Acts of War," *The Heritage Foundation*, accessed 3/26/17, <http://www2.heritage.org/research/projects/enemy-detention/al-qaeda-declarations>.

<sup>113</sup> Gaetano Joe Ilardi, "Al Qaeda's Operational Intelligence—A Key Prerequisite to Action," *Studies In Conflict & Terrorism* 31, no. 12 (2008), *International Security & Counter Terrorism Reference Center*, 1082.

<sup>114</sup> Ibid.

<sup>115</sup> Mobley, 92.

<sup>116</sup> Ibid.



*Akhbar*. Leadership also developed close contacts with international media, using these outlets to disseminate documentaries about Bin Laden and issue public condemnations of the Saudi and US governments.<sup>117</sup> The group established a propaganda office in London, known as the “Advice and Reformation Committee.”<sup>118</sup> Al Qaeda was beginning to spread its message globally in order to garner popular support, but its ability to do so remained modest during this period.

Al Qaeda also utilized a number of counterintelligence techniques prior to 1996, including background-checking recruits, establishing aliases and cover identities, and coding communications. However, their international counterintelligence had a number of vulnerabilities, including a lack of vetting for recruits and lax security practices when using computers.<sup>119</sup> It was not until Osama Bin Laden issued his fatwa against the US in 1996 that the full force of international intelligence agencies was brought against Al Qaeda, forcing the group’s leadership to address these vulnerabilities with more vigor.

One of the most noticeable developments of Al-Qaeda’s intelligence function was the increased sophistication of its counterintelligence practices following Bin Laden’s declaration of war against the United States in 1996. Al Qaeda relocated its core to Afghanistan during this time, establishing a safe haven in the country from which to operate. In its training camps, leaders began wearing face covers to protect their identities. Recruits were no longer allowed to bring tape recorders, cameras, radios, video equipment, or other potential recording devices into the camps. Recruits were also put through more vigorous vetting before acceptance into the group, and were instructed in internal security practices. Al Qaeda also strengthened counterintelligence practices in

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<sup>117</sup> Mobley, 90.

<sup>118</sup> Ibid., 101.

<sup>119</sup> Ibid., 94-95.

its interactions with the media. In at least one instance, Al Qaeda technical experts edited the tape recording taken by a foreign reporter to remove the faces of group members caught on film. Al Qaeda leadership also heightened their personal security measures, separating themselves from new recruits and outsiders. Communications methods were enhanced as well, including the implementation of a coded communication system and an avoidance of unsecure email and phones, sometimes using personal couriers for messages.<sup>120</sup> It should be noted, however, that Al Qaeda used other means of electronic communications, and sometimes used encryption when it did, suggesting they were adapting to new means of covert communications.<sup>121</sup>

At it began to plan large-scale, global attacks, Al Qaeda significantly increased its intelligence activities. As early as 1997, Al Qaeda operatives conducted reconnaissance on potential targets by using video surveillance.<sup>122</sup> At roughly the same time, evidence suggests Al Qaeda also formalized its intelligence reporting. Al Qaeda's leadership instructed its operatives to create standardized "casing reports," which were structured with a certain level of uniformity, included maps, drawings, or other relevant materials, and were then classified, prioritized, and disseminated back to leadership for analysis.<sup>123</sup> The group established international cells to plan operations against the West. Al Qaeda also made extensive use of open source intelligence collection as early as the late 1990s, using the Internet, newspapers, magazines and other sources to compile intelligence that would be sent to leadership for analysis.<sup>124</sup>

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<sup>120</sup> The information regarding the developments in Al-Qaeda's counterintelligence practices is informed by Mobley, 110.

<sup>121</sup> Alan Cullison, "Inside Al-Qaeda's Hard Drive," *The Atlantic*, September, 2004, accessed 3/26/17, <https://www.theatlantic.com/magazine/archive/2004/09/inside-al-qaeda-s-hard-drive/303428/>.

<sup>122</sup> Gaetano Joe Ilardi, "Al Qaeda's Operational Intelligence—A Key Prerequisite to Action," 1089.

<sup>123</sup> Ibid.

<sup>124</sup> Mobley, 106.

During this period, covert action was still limited to propaganda. Bin Laden engaged with international media in an effort to reach Muslims globally with his message of Jihad. Al Qaeda often signed its name to the propaganda, but some of it was designed to be of unknown origins, including anonymous interactions on online chat forums.<sup>125</sup> The group also cultivated networks of sympathetic contacts abroad to help spread their message and drive recruits to the terrorist group.<sup>126</sup>

Al Qaeda has also demonstrated a unique intelligence activity not seen in other VNSAs—concerted intelligence analysis. Al Qaeda’s leadership received intelligence reports from its cells that were conducting surveillance of targets and then used that information to inform decision-making on final target selection, methods of execution, and the best operatives to carry out specific missions.<sup>127</sup> Al Qaeda’s leadership also engaged in strategic and political intelligence analysis, assessing various geopolitical situations and estimating potential outcomes for their actions.<sup>128</sup> For example, in 2003, the group assessed that the US would withdraw from Iraq if it became too economically costly. Therefore, Al Qaeda analyzed that it should reduce the number of US allies in Iraq, ultimately deciding that was the most vulnerable and faced the most domestic opposition to the war in Iraq. An Al Qaeda document revealed that the group then assessed that it should target Spanish forces with attacks in order to influence the country’s political sentiment.<sup>129</sup>

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<sup>125</sup> Seib, Philip Seib, "The Al-Qaeda Media Machine," *Military Review*, 88:3 (2008), 74; Mobley 112, 135.

<sup>126</sup> Mobley, 102.

<sup>127</sup> Gaetano Joe Ilardi, "Al Qaeda's Operational Intelligence—A Key Prerequisite to Action," 1077.

<sup>128</sup> Mark Stout, "Monitoring from Afar: How Al-Qaeda Assesses Its Progress," in *Assessing War: The Challenge of Measuring Success and Failure*, ed. Leo J. Blanken, Hy Rothstein, and Jason J. Lepore (USA: Georgetown University Press, 2014), 239-243.

<sup>129</sup> Ibid., 1083-1085; and Lia, Brynjar, and Thomas Hegghammer, "Jihadi Strategic Studies: The Alleged Al Qaeda Policy Study Preceding the Madrid Bombings," *Studies In Conflict & Terrorism* 27, no. 5 (2004), *International Security & Counter Terrorism Reference Center.*, 355-75.

Perhaps the most significant development in Al Qaeda's intelligence function is its growing aptitude at conducting intelligence activities on the Internet. Al Qaeda first appeared on the Internet in 2000, but did not become a heavy Internet user for intelligence purposes until the United States invasion of Afghanistan forced the dispersion of the group's leadership.<sup>130</sup> As early as 2006, for example, Al Qaeda used satellite reconnaissance imagery available online to aid in planning attacks.<sup>131</sup> In what Al Qaeda has deemed the "electronic *jihad*," the group also utilizes the Internet to spread its message globally, recruit new members, and train current members. Covert action in the form of online propaganda takes many forms. Al Qaeda posts sermons, educational materials, internal strategy documents, flashy recruitment videos, and advertisements supporting their *jihadist* mission on many Internet forums.<sup>132</sup> This method been assessed as highly effective at promoting the *jihadist* agenda and radicalizing Muslims and non-Muslims alike.

Al Qaeda has also been known to use Internet forums to post intelligence training courses and other lessons in tradecraft.<sup>133</sup> This was likely born out of necessity as training camps, once the physical classroom for the group's intelligence education, were largely eradicated during the Global War on Terror.<sup>134</sup> The Internet also provided Al Qaeda with a critical source for open source intelligence gathering. While the group was known to use the Internet to conduct OSINT in preparing the 9/11 attacks, there is evidence that

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<sup>130</sup> Aaron Zelin, "The State of Global Jihad Online," New America Foundation, January 2013, 5, accessed 3/24/17, <http://www.washingtoninstitute.org/uploads/Documents/opeds/Zelin20130201-NewAmericaFoundation.pdf>.

<sup>131</sup> "The Google Controversy – Two Years Later," *Open Source Center*, July 30, 2008.

<sup>132</sup> Martin Rudner, "'Electronic Jihad': The Internet as Al Qaeda's Catalyst for Global Terror," *Studies in Conflict & Terrorism*, 40:1 (2017), 10-23.

<sup>133</sup> Ibid.

<sup>134</sup> Mobley, 124.

suggests they became more reliant on this method over time.<sup>135</sup> There is even evidence to suggest that Al Qaeda may have the technical sophistication to probe US critical infrastructure via cyber means.<sup>136</sup> However, no evidence was found that Al Qaeda has indeed carried out cyber attacks or any cyber espionage (beyond the intelligence activities noted above).

### **Islamic State in Iraq and the Levant (ISIL)**

ISIL is a militant Sunni terrorist group formed as a splinter group of Al Qaeda in Iraq (AQI). It was founded in 2006 by the successors of Abu Musab al-Zarqawi as “the Islamic State in Iraq.” In 2010, Abu Bakr al-Baghdadi was appointed as leader. This is the same time that ISIL became involved in the rebellion against Syrian President Bashar al-Assad. In 2013, ISIL burst onto the international scene after a number of battlefield victories, when it formally announced itself as “Islamic State in Iraq and the Levant,” and claimed its areas of control as its “caliphate,” or a state governed in accordance with Islamic Law (Sharia).<sup>137</sup> ISIL has a formalized intelligence function known as the “Emni,” also referred to as its security group.

The data on ISIL and its intelligence function is recent and is limited to a small sampling of literature based primarily on a cache of documents discovered in 2014.<sup>138</sup>

The documents belonged to Haji Bakr, a former colonel in the intelligence service of

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<sup>135</sup> Gaetano Joe Ilardi, “Al-Qaeda's Counterintelligence Doctrine: The Pursuit of Operational Certainty and Control,” 253

<sup>136</sup> Joe Varner, “Is there a Terrorist Threat to Our Critical Infrastructure?” *In Homeland Security*, April 14, 2007, accessed 3/23/17, [http://inlandsecurity.com/is\\_there\\_a\\_terrorist\\_threat\\_to/](http://inlandsecurity.com/is_there_a_terrorist_threat_to/).

<sup>137</sup> “What is ‘Islamic State?’” *BBC News*, September 2015, accessed 3/26/17, <http://www.bbc.com/news/world-middle-east-29052144>; and Zachary Laub, “The Islamic State,” *CFR Backgrounders*, updated August 10, 2016, The Council on Foreign Relations, accessed 3/26/17, <http://www.cfr.org/iraq/islamic-state/p14811>.

<sup>138</sup> Christoph Reuter, “The Terror Strategist: Secret Files Reveal the Structure of Islamic State,” *Der Spiegel Online*, April 18, 2015, <http://www.spiegel.de/international/world/islamic-state-files-show-structure-of-islamist-terror-group-a-1029274.html>.

Saddam Hussein's Air Defense Force. Bakr was the architect of the Emni and helped establish ISIL's caliphate in the earliest stages of its conquest.<sup>139</sup> Haji Bakr modeled the Emni similar to a state intelligence agency with rigid structure, reporting lines, and delineation of responsibilities. The documents reveal that the establishment of ISIL's caliphate in Iraq and Syria itself was the product of meticulously crafted intelligence activities, and could be considered the Emni's first covert action.

Bakr set out a plan for the Emni to takeover, village by village, what would become ISIL's caliphate. Operatives infiltrated towns by opening a Dawah office, or Islamic missionary center. The Dawah offices served as a means to begin subtly propagandizing to and spying on the local population. Emni spies collected intelligence about the town's leaders, the religious and political atmosphere, prominent families, and any details regarding armed forces in the village. The Dawah offices also recruited operatives from the local population. When it was determined the Emni had enough support in a village, ISIL forces moved in, seemingly overnight, erecting their flag and laying claim to the area. If intelligence collection unearthed potential opponents or individuals who would cause trouble, the security forces eliminated them. In villages with a large presence of armed groups, the Emni cut deals with them or pit groups against each other to clear the way for ISIL forces. In other instances, the Emni used intimidation tactics such as public executions to deter possible resistors. It is in these ways that ISIL was able to slowly take over significant swaths of land in Iraq and Syria before facing their first unified resistance from Syrian rebel groups.<sup>140</sup> Such audacious

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<sup>139</sup> Reuter, "The Terror Strategist," and Anne Speckhard and Ahmet S. Yayla, "The ISIS Emni: Origins and Inner Workings of ISIS's Intelligence Apparatus," *Perspectives On Terrorism* 11, no. 1 (2017), , 3-4.

<sup>140</sup> Ibid.

covert action of this scale is evidenced only by ISIL among the VNSAs examined for this study.

Supporting the group's ability to conduct such operations are advanced intelligence and counterintelligence activities. The Emni trained their operatives in routine surveillance and covert communications, and ordered intelligence collection on everything from the number of houses in a village and the names and occupations of each household member to the political ties of every villager.<sup>141</sup> This is also indicative of some level of intelligence analysis, although there is no specific evidence of an advanced analytical capability or function in the Emni. Counterintelligence methods revealed in the testimony of former ISIL members include extensive background checks, dedicated counterintelligence operatives, and the recruiting of spies and informants from rival groups.<sup>142</sup>

Like Al Qaeda, ISIL has shown an aptitude for using the Internet for propaganda and recruiting, and well as communications. ISIL publishes several magazines online to spread its messages to its followers, and has been known to use social media to radicalize members abroad.<sup>143</sup> ISIL members were once encouraged to communicate using freely available mobile apps that allowed for encrypted communications.<sup>144</sup> The group has shown its adaptability, using modern technologies to assist in its collection of

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<sup>141</sup> Anne Speckhard and Ahmet S. Yayla, "The ISIS Emni: Origins and Inner Workings of ISIS's Intelligence Apparatus," 3-4.

<sup>142</sup> Rukmini Callimachi, "How a Secretive Branch of ISIS Built a Global Network of Killers," *The New York Times*, August 3, 2016, accessed 3/25/17, [https://www.nytimes.com/2016/08/04/world/middleeast/isis-german-recruit-interview.html?\\_r=0](https://www.nytimes.com/2016/08/04/world/middleeast/isis-german-recruit-interview.html?_r=0); and Speckhard and Yayla, "The ISIS Emni," 3-4.

<sup>143</sup> Javier Lesaca, "Fight Against ISIS Reveals Power of Social Media," *Techtank*, The Brookings Institute, November 19, 2015, accessed 3/26/17, <https://www.brookings.edu/blog/techtank/2015/11/19/fight-against-isis-reveals-power-of-social-media/>

<sup>144</sup> Ali Breland, "ISIS Tells Members to Stay Off Messaging Apps," December 2, 2016, accessed 3/26/17, <http://thehill.com/policy/technology/308504-isis-tells-members-to-stay-off-messaging-apps>.

intelligence, including ISIL's use of Google Maps to help in the preparation of attacks.<sup>145</sup> The group has also recently been using commercially available drones to conduct aerial reconnaissance.<sup>146</sup> Incorporating such advanced means of intelligence collection illustrates the group's propensity for adapting to the times, and mirroring the intelligence activities of states' intelligence functions.

## **Discussion**

The hypothesis that VNSAs intelligence functions have developed over the past two decades in a similar way to that of states, but delayed, was supported by data in two cases. PIRA, which showed adaptability in its intelligence function but did not see any major developments over the period of study, is the only case that provides evidence against the hypothesis. PIRA utilized highly sophisticated collection prior to the period of study (e.g. collecting SIGINT on par with the capabilities of its state adversaries), but did not significantly develop any of these activities after it agreed to a ceasefire in 1997.

PIRA consistently utilized proven intelligence activities such as basic reconnaissance and HUMINT. Even the Castlereagh break-in, PIRA's most significant intelligence achievement in decades, was carried out by human agents using forged documents. The group was able to decrypt the disks they stole, but an outside agent could have done this for them. There is simply no evidence to suggest that PIRA strongly followed any of the trends seen in states' intelligence agencies over the same decade, namely an increased reliance on technology and open source intelligence. IRA Scholar J. Boyer explained PIRA's preference for less sophisticated intelligence

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<sup>145</sup> Editorial Staff, "ISIS Using Google Maps to Plan Attacks on Airports," *American Military News*, September 29, 2016, accessed 3/26/17, <https://americanmilitarynews.com/2016/09/isis-using-google-maps-to-plan-attacks-on-airports/>.

<sup>146</sup> Ben Watson, "The Drones of ISIS," *Defense One*, January 12, 2017, accessed 3/26/17 <http://www.defenseone.com/technology/2017/01/drones-isis/134542/>.



activities. He said, “If the lights in London were to be turned off, [PIRA] bombed the power stations rather than tinkered with the computers.”<sup>147</sup>

The lack of developments in PIRAs intelligence function may also be explained by their 1997 agreement to cease hostilities. However, it does appear that their intelligence functions were still operating as late as 2002. Further, RIRA, the most current iteration of Irish Republican terrorists, is still conducting intelligence activities. It has also been proposed that these groups are active in online forums, perhaps indicating intent to propagandize and recruit new members through the Internet.<sup>148</sup> This would represent a significant development in the intelligence function of this VNSA, but the lack of supporting evidence available casts doubt on the legitimacy of this claim. It should be noted that PIRA and RIRA’s theater of operation is limited, which may also explain why its intelligence function did not develop as significantly as groups who are engaged globally (such as Al Qaeda and ISIL). PIRA and RIRA have been familiar with their adversary (UK law enforcement and intelligence), for decades and may have been more likely to trust the activities they knew worked for them previously.

Al Qaeda’s intelligence functions made a number of significant developments from 1997 until 2000, and again after around 2003. To summarize, the development of Al Qaeda’s intelligence functions are shown in Table 1:

Table 1, Developments in Al Qaeda’s intelligence function

<b>Intelligence Activity</b>	<b>Significant Developments</b>	<b>Year</b>
Collection	Video; commercial imagery	1997; 2006
Open Source Collection	Standard; Internet	Increased use over period of study; 2003 (aapx)
Covert Action	Print and mainstream media;	1997-present; 2003 (appx)

<sup>147</sup> Bell, *The IRA*, 229.

<sup>148</sup> Lorraine Bowman-Grieve, "Irish Republicanism and the Internet: support for New Wave Dissidents," *Perspectives On Terrorism* 4, no. 2: 22-34, *International Security & Counter Terrorism Reference Center* (2010), (accessed March 25, 2017).

(Propaganda)	internet	
Counterintelligence	Improved background checks; coded communications; encryption	1997-present; 1997-present; 2000 (appx)
Intelligence Reporting	Standardization	1997
Tradecraft training	Detailed and formalized; internet based	1997; 2002 (appx)
Intelligence Analysis	Standard; political	1997-present; 2003-present

Source: Gaetano Joe Ilardi, "Al-Qaeda's Counterintelligence Doctrine: The Pursuit of Operational Certainty and Control;" Gaetano Joe Ilardi, "Al Qaeda's Operational Intelligence—A Key Prerequisite to Action;" and Mobley, *Terrorism and Counter-Intelligence: How Terrorist Groups Elude Detection*.

As seen in Table 1, Al Qaeda evidenced a number of noteworthy developments in its intelligence function. Many of these developments, such as the incorporation of video into their surveillance methods in 1997, or their adoption of encryption technology in approximately 2000, illustrate that Al Qaeda, much like states' intelligence agencies, grew increasingly reliant on technology over time. Al Qaeda's use of commercial imagery in 2006 supports the hypothesis that VNSAs' intelligence functions develop in similar ways to those of states' intelligence agencies, but delayed.<sup>149</sup> Al Qaeda's intelligence function also mirrored another trend seen in the development of states' intelligence agencies—the increased use of open source intelligence. The group was known to collect OSINT prior to the 9/11 attacks, but their use of it became more prominent as they began using the Internet for many of their intelligence activities. Al Qaeda has even published instructions online for its followers to learn how to carry out "Open Source Jihad."<sup>150</sup>

<sup>149</sup> The resolution of imagery available on Google Earth in 2016 was available to the US government in the 1970s. See Thom Patterson, "1970's Spy Satellite Better Than Google Earth," *CNN*, September 1, 2016, accessed 3/27/17, <http://www.cnn.com/2016/09/01/us/declassified-spy-satellite-hexagon/>.

<sup>150</sup> Scott Stewart, "Inspiring Attacks on Economic Leaders," *Security Weekly*, May 19, 2016, STRATFOR, accessed 3/26/17, <https://www.stratfor.com/weekly/inspiring-attacks-economic-leaders>

The data on ISIL also supports the hypothesis as the group emulates at least one trend exhibited by states' intelligence agencies—an increased reliance on technology. ISIL makes heavy use of the Internet for propaganda purposes and recruitment. The group has also evidenced the use of commercial imagery for planning attacks, and has utilized commercially available drones for conducting reconnaissance. It is also worth reiterating that ISIL has demonstrated a unique ability for carrying out sophisticated covert actions. This is a significant development, but is difficult to compare to trends in states' intelligence agencies, as data on covert action is naturally limited due to its secrecy.

After examining the data on the intelligence functions of three VNSAs, it is clear that two groups have made significant developments over the study period, and that these developments largely mirror trends seen in states' intelligence agencies. Both Al Qaeda and ISIL developed their intelligence functions in highly organized manners with operatives who had advanced training in tradecraft such as Abu Omar (Al Qaeda) and Haji Bakr (ISIL). Inherent to this reality is the fact that these organizations learned from states' intelligence agencies and likely emulated their methods, at least to some degree. However, the intelligence functions of VNSAs lacked the same resources, both technological and financial, as states. As such, operatives such as Abu Omar and Haji Bakr were likely fully aware of the utility of highly encrypted communications or UAV reconnaissance, but had to wait for the technologies to become more easily available before incorporating them into their own methods.

The research also yielded unexpected results. Perhaps the most surprising development in any single VNSA's intelligence function is the increased use of OSINT

by Al Qaeda. On the surface, this seems logical. Global access to the Internet has made a wealth of information available to anyone who seeks it. However, understanding the utility of this information and incorporating it into the intelligence function in the same way states' intelligence agencies have further demonstrates a thorough understanding of how their adversaries operate. Al Qaeda also was the only VNSA that exhibited concerted intelligence analysis in a somewhat structured form. The fact that leadership undertook advanced political analysis on its adversaries shows a high level of sophistication in its intelligence function, unmatched by any of the other VNSAs studied. ISIL also exhibited a unique penchant for large-scale covert action. While other groups showed the ability to conduct the same intelligence activities as ISIL, they did not in turn use these activities to take over large swaths of land in such a meticulously planned fashion.

## **Conclusion**

This paper set out to determine how the intelligence functions of violent non-state actors have developed over the past two decades. By establishing how VNSAs' intelligence functions operated prior to the period of study, it was determined that these groups typically conduct significant HUMINT collection, frequently utilize covert action in the form of propaganda, and traditionally enforce strong counterintelligence measures. It was also determined that states' intelligence agencies have demonstrated recent trends including an increased reliance on technology for intelligence collection and an increased use of OSINT. A hypothesis was formed that the intelligence functions of VNSAs have developed similarly to those of states' intelligence agencies, but delayed. A series of case studies was undertaken, examining the intelligence functions of three VNSAs prior to the

period of study, and during. After examining the case studies, this hypothesis was proven correct, though there was opposing evidence in one case.

This study has demonstrated that the intelligence functions of VNSAs generally have shown significant developments over the past two decades. Moreover, these developments appear to support the hypothesis that developments in VNSAs intelligence functions are similar to the developments seen in in states' intelligence agencies, although delayed. This conclusion is limited only to the cases studied. More research should be done on the intelligence functions of other VNSAs, but the existing data is limited in sample size and by the classified nature of much of the information. Similar research of a more quantitative nature would also serve the field of intelligence studies greatly. The implications of the supported hypothesis of this study point to the utility of a future trend analysis of developments in both states' and VNSAs' intelligence functions. Such an analysis may provide indicators as to how VNSAs will develop in the future. By demonstrating that VNSAs have not only sophisticated intelligence functions, but also the ability to significantly enhance their activities over time, it can now be seen how vital these functions are to the continued existence of VNSAs and how states may adjust their strategies in dealing with them.

## **Chapter 3: The Impact of New Space Based Military and Intelligence Programs on Space Relations**

### **Introduction**

The practice of intelligence collection dates back thousands of years, when human agents collected information, mapped battlefields, and clandestinely shared information. As technology has progressed over time, so have the means for intelligence collection. For example, when aerial balloons were first used for manned-flight, they were quickly implemented for use in battle. The same was done with airplanes in World War I and II. In World War I, the advent of communication over radio and telegram led to a source for Signals Intelligence (SIGINT) collection, allowing for interceptions of direct communications from the enemy. SIGINT provided a new source of actionable, real time intelligence and quickly became crucial to intelligence operations. When the USSR and US entered into the Cold War after WWII, an increased sense of urgency was placed on intelligence collection due to the existential threat posed by nuclear weapons. Because collecting intelligence via HUMINT was increasingly difficult and dangerous (particularly for the US), these countries used technological innovation to develop alternative means for intelligence collection. Looking at a new frontier in space, satellite systems were developed to collect intelligence on adversaries from above with almost complete impunity. Satellites provide collection of geospatial intelligence (GEOINT) and SIGINT, while also enabling global navigation capabilities and other communications. These systems became so crucial to intelligence operations immediately after they were first fielded that the USSR and US tacitly agreed to allow free use of satellites for intelligence collection so as to not have to surrender their own vitally intelligence collection platforms. The reliance on these systems has only increased over time.

For two decades, only the USSR and US enjoyed the benefit of military and intelligence assets in space. In contrast, today any nation with enough funding can purchase these systems and the launch services to put them in orbit. While many nations were undoubtedly aware of the advantages military and intelligence satellites provided prior to the First Gulf War, the conflict demonstrated to the international community the central role space assets could command in warfare. Since then, there has been an increase in the number of military and intelligence satellites inserted into space by lesser, or entirely new, space faring nations, particularly in the last twenty years.<sup>151</sup> The geopolitics of this arena are further complicated as more nations enter space for national security, civil, and commercial purposes.

There is no single, widely accepted model for how nations will interact in space as the domain becomes more populated.<sup>152</sup> There has been a robust discussion on how nations have interacted in space during the fifty years since the domain first opened, and the unprecedented level of space activity in the past two decades warrants similar consideration. Moreover, while in the past many nations entered space for only civil and commercial purposes, more nations are now entering space specifically with military and intelligence programs. This chapter adds to the literature on the space domain by examining how the recent insertion of military and intelligence assets into space by lesser and new space faring nations has impacted the way nations interact in space.<sup>153</sup> The period of study for this paper is from 2000 to the present day, during which several

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<sup>151</sup> James Clay Moltz, *Crowded Orbits: Conflict and Cooperation in Space* (New York, Columbia University Press, 2014), p. 122.

<sup>152</sup> For the purposes of this paper, domain is not defined in the traditional sense of owned territory, but instead as a sphere of activity.

<sup>153</sup> Lesser nations can be defined as those nations who may have been in space prior to the period of study, but were unable to develop, operate, or launch their own systems; or those that did not have space based military and intelligence systems. New space faring nations are defined as nations who acquired or developed their first space systems and put them in orbit.

nations have introduced dedicated military space programs, and numerous others have developed or acquired military and intelligence space assets.<sup>154</sup>

The first section of this paper provides an overview of the various uses of space, surveys the literature on other newly realized domains and how they parallel the space domain, and summarizes the relevant theories on how nations interacted in space during the first fifty years that the domain was opened. A survey of interactions between space faring nations both before, and since, the turn of the century follows in the data section, followed by an analysis of these interactions. Finally, the conclusion summarizes the key findings about how the insertion of military and intelligence assets by new space faring nations has impacted how nations interact in space.

### **Literature Review**

To better understand how the recent insertion of space based military and intelligence satellites by lesser and new space faring nations has impacted the way nations interact in space, key concepts need to be addressed. First, what are the activities in space other than those for national security purposes, and why do nations want military and intelligence assets in space? Additionally, what lessons can be learned about interactions between nations in space from their historical interactions in newly realized domains, and how did the insertion of new entrants to these domains impact the way in which nations interacted? Lastly, what theories have been applied to understand the interactions between nations during the first fifty years that the domain was open? Understanding these concepts will help assess how the recent insertion of military and

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<sup>154</sup> Many nations do not have government agencies dedicated specifically for national security space purposes, such as the National Reconnaissance Office in the United States.



intelligence systems by lesser and new space faring nations has impacted the way nations interact in space.

Space activities generally fit into three divisions: National security, civil, and commercial. National security space activities are those that support a nation's military and intelligence functions. Military and intelligence systems represent a significant portion of the number of satellites in orbit, and intelligence, surveillance, and reconnaissance (ISR) satellites alone are projected to represent 36% of the global space market by 2025.<sup>155</sup> These include precision navigation and timing satellites (such as the US Global Positioning System, or, GPS), protected military communications satellites, missile warning and indications satellites, and ISR satellites. Space based ISR assets can serve several functions, including geospatial intelligence (GEOINT), measurement and signature intelligence (MASINT), and signals intelligence (SIGINT) collection. The USSR and US first introduced these systems in the early years of the Cold War with the purpose of spying on each other from above to augment terrestrial-based intelligence collection. Because of the increased reliance on these systems from intelligence agencies, the sophistication of space based ISR systems has increased significantly since their introduction.<sup>156</sup> Satellite technologies have also proliferated over time, including to commercial actors, allowing more countries to feasibly gain the access to space that was once cost-prohibitive for all but the richest nations. While many nations are motivated to

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<sup>155</sup> Pat Norris, *Spies in the Skies* (United Kingdom: Springer, 2008), p. 57-62; market projections from: Michael Peck, "Global Military Satellite Market Projected to Hit \$9.7B," C4ISRNET, July 8, 2015, accessed 5/20/17, <http://www.c4isrnet.com/story/military-tech/satellites/2015/07/08/global-satellite-market-forecast-military/29869271/>.

<sup>156</sup> On "increased reliance," see: Mark M. Lowenthal, *Intelligence: From Secrets to Policy*, sixth ed. (Los Angeles: CQ Press, 2015), p. 21-22.

place national security assets in space to enhance security, there are other activities in space that are important for political, economic, and humanitarian reasons.

Civil space activities include scientific missions such as space based weather observation or climate change monitoring, and even using satellites to manage commercial airline traffic. Commercial space activities are those conducted by non-governmental entities, such as satellite television or broadband Internet companies. In civil and commercial space activities, there has historically been – and continues to be – a certain level of international cooperation. For example, the USSR and US pursued collaborative efforts on scientific missions in the early days of the space race.<sup>157</sup> In later years, the two nations collaborated on the International Space Station with over a dozen other nations.<sup>158</sup> In the commercial sector, international cooperation is the norm. Companies from different countries can be responsible for each component of getting a satellite into space – building the satellite, manufacturing the technology, and providing the launch capability to put it in orbit. This cooperation should not necessarily be expected, however, in national security space activities, where nations are far more secretive about their activities.

Space is an entirely unique domain with physical characteristics that differentiate it from others such as land and sea. Nonetheless, scholars have drawn parallels to other newly realized domains and formulated theories to explain how nations may be expected to interact space. The most common comparisons are with the discovery of the New World in the 15<sup>th</sup> century, the opening of the air domain, and the competition over

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<sup>157</sup> Scott J. Shackelford, “Governing the Final Frontier,” *American Business Law Journal* 51:2 (2009): p. 458.

<sup>158</sup> NASA, “International Space Station,” updated Jan. 9, 2017, NASA.gov, accessed 5/14/17, [https://www.nasa.gov/mission\\_pages/station/cooperation/index.html](https://www.nasa.gov/mission_pages/station/cooperation/index.html)

Antarctica. In the examination of the literature on these comparisons below, an attempt is made to highlight instances where first occupiers of the domain reacted to the second (or later) waves of entrants. Many of these analogies reveal strong similarities between space and other domains. However, there are still more questions than answers about how nations may be expected to interact in the space domain because of its unique characteristics.

The discovery of the New World, much like the opening of the space domain, saw two nations enter first, followed shortly after by many others. The intense competition to reach the New World was driven by national pride and technological innovation, and was filled with secrecy. Spain and Portugal competed to stake the first claims to land in the Americas, and managed to reach an agreement to settle separate areas with the Treaty of Tordesillas in 1494.<sup>159</sup> The two nations attempted to exclude other nations from the new territories by withholding their maps and routes of travel.<sup>160</sup> However, the discovery of new territory could not be kept secret forever, and soon more nations, including England and France, reached the New World, resulting in diplomatic and armed conflict for many years.

While certain parallels have been noted between the discovery of the New World and space, differences abound.<sup>161</sup> The first fault with this analogy is that no war has been fought in space. Another stark difference is that the opening of the space frontier was held in public view as a demonstration of national prowess for the two superpowers,

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<sup>159</sup> Lawrence A. Coben The Events that Led to the Treaty of Tordesillas, *Terrae Incognitae*, 47:2 (2015), 142-162.

<sup>160</sup> James Clay Moltz, *The Politics of Space Security: Strategic Restraint and the Pursuit of National Interests* (Stanford, Calif.: Stanford Security Studies, 2008), 16.

<sup>161</sup> For the New World analogy, see Walter A. McDougall, ...*The Heavens and Earth: A Political History of the Space Age* (New York: Basic, 1985), p. 225.

though the technical means were of course closely guarded secrets. Because of this imperfect analogy, we are left to look to other models to add to our understanding of how nations interact in new domains.

Security focused analysts have cited an analogy between the opening of the space domain and the inception of the air domain. The air domain, first occupied with balloons and later with airplanes, was militarized almost immediately – first for reconnaissance in war, and then for combat.<sup>162</sup> While there were alliances between nations, there was also conflict.<sup>163</sup> Airplanes were equipped with bombs and guns and quickly became a central component of military strategy for air faring nations. However, international cooperation in the air domain was demonstrated as civil aviation grew in sophistication and commercial transoceanic flights began. Nations had to cooperate to establish safety measures to avoid disaster.<sup>164</sup> In this instance, it is seen that some level of international cooperation may be expected when the activities in a new domain are of a civil nature.

Theories on airpower first developed after World War I. Some airpower theorists contended that control of the skies meant control over land and sea as well, and espoused airpower as the end-all be-all of national power.<sup>165</sup> Others believed this was a grave error, and noted that airpower must be considered with other forms of military power.<sup>166</sup>

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<sup>162</sup> Peter Jakab, "The World's First Military Airplane," July, 2009, Smithsonian National Air and Space Museum website, accessed 5/14/17, <https://airandspace.si.edu/stories/editorial/world%E2%80%99s-first-military-airplane>.

<sup>163</sup> Joseph W. Caddell, *Corona Over Cuba: The Missile Crisis and the Early Limitations of Satellite Imagery Intelligence*, 2016, Intelligence and National Security 31:3.

<sup>164</sup> James Clay Moltz, "Twenty-First-Century Space Security: Conflict or Collaboration?" *Current History*, January, 2015, p. 16.

<sup>165</sup> James Andrew Lewis, "Neither Mahan nor Mitchell: National Security Space and Spacepower, 1945-2000," in *Toward a Theory of Spacepower: Selected Essays*, eds. Charles D. Lutes et al. (Washington, DC: National Defense University Press, 2011), 286.

<sup>166</sup> Benjamin S. Lambeth, "Airpower, Spacepower, and Cyberpower," in *Toward a Theory of Spacepower: Selected Essays*, eds. Charles D. Lutes et al. (Washington, DC: National Defense University Press, 2011), 328; Edward Warner, "Douhet, Mitchell, Seversky: Theories of Air Warfare," in *Makers of Modern Strategy*, ed. Edward Mead Earle (Princeton: Princeton University Press, 1943)

Additionally, some recognized that true airpower included the civilian and commercial potential, and not only military strength.<sup>167</sup> Though some have drawn similarities between the space and air domains, these similarities rest upon the idea that space is the dominant military domain for asserting national power.<sup>168</sup> While it is true that the space domain has become (like the air domain) essential for military, economic, and commercial purposes, a nation cannot assert territorial claims in, or from, space. The concept of controlling space remains problematic, and some contend that for this reason the application of airpower theory to the space domain is simply not realistic.<sup>169</sup>

Some scholars also refer to the case of Antarctica to inform studies of international interaction in the space domain.<sup>170</sup> Seven nations staked claims to the arctic by the 1940s, and disputes over the territory threatened to boil over into open conflict. The USSR and US also desired access to Antarctica after WWII. International cooperation in this domain manifested in the International Geophysical Year in 1957, an agreement that opened the territory to scientific research by twelve countries. This scientific cooperation resulted in further negotiations, led by the US, to establish governing principles for international activities in Antarctica. The Antarctic Treaty was agreed to in 1959, settling disputes over contested claims and allowing the new

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<sup>167</sup> General Henry H. Arnold, USAF, *Global Mission* (New York: Harper and Brothers, 1949), 290–291.

<sup>168</sup> The full breadth of the debate of airpower theory's application to space is far beyond the scope of this chapter, for more, see: Steven Lambakis, *On the Edge of Earth: The Future of American Space Power*, Lexington: University Press of Kentucky, 2001; Maj. (USMC, ret.) Franz J. Gayl, "Time for a Military Space Service," *Proceedings* (July, 2004), p. 44; Samuel L. McNiel, "Proposed Tenets of Space Power," *Air & Space Power Journal* 18, no. 2: 71-83, 2004; Mark Harter, "Ten Propositions Regarding Space Power: The Dawn of a Space Force," *Air & Space Power Journal* 20, no. 2: 65-78; Maj M. V. Smith, *Ten Propositions Regarding Space Power*, Fairchild Paper (Maxwell AFB, AL: Air University Press, October 2002); and Cmdr. (USN) John J. Klein, *Space Warfare: Strategy, Principles and Policy* (London: Routledge, 2006), 20.

<sup>169</sup> James Clay Moltz, *The Politics of Space Security: Strategic Restraint and the Pursuit of National Interests* (Stanford, Calif.: Stanford Security Studies, 2008), 19.

<sup>170</sup> Phillip Jessup and Howard J. Taubenfeld, *Controls for Outer Space and the Antarctic Analogy* (New York: Columbia University Press, 1959); See also: John Siebert, "Outer Space Warfare and Metaphor Drag," *Ploughshares Monitor* 36, no. 2: 14-18, 2015; and Moltz, *The Politics of Space Security*, 20-22.

superpowers the right to stake claims as well.<sup>171</sup> However, third world nations opposed the limited membership of the Antarctic Treaty and argued for their right to the territory. After being allowed to visit the region, experiencing the harsh climate, and seeing the difficulty of resource extraction, many backed off their protests. Later protests by dozens of nations for the right to drill for oil in Antarctica were also ultimately denied, and in 1991, Antarctic Treaty members agreed to prohibit mining in the territory for fifty years.<sup>172</sup>

The similarities between the space domain and the Antarctic are numerous: an extremely harsh environment, an unknown extent of valuable resources, and a vast, unexplored amount of territory. The Antarctic analogy is also apt in that nations ultimately decided to not extend territorial claims into the domain and promoted its peaceful use. This came after the initial impulse to militarize the domain. There is also a similarity in these domains in that both have a financial barrier to entry. Nations who felt cheated by the Antarctic Treaty were nonetheless hesitant to stake claims after realizing the costs associated with resource extraction. Lastly, the Antarctic, like space, has never seen direct international conflict.<sup>173</sup> Despite these similarities, the differences between Antarctica and space are significant. Namely, the advantages seen in occupying Antarctica are primarily scientific research and resource extraction, whereas space offers immense advantages for military and intelligence purposes in addition to these other missions. As such, the space domain has seen the ongoing insertion of military and intelligence assets, notably absent from the Antarctic, since it was first opened.

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<sup>171</sup> Secretariat of the Antarctic Treaty, *The Antarctic Treaty*, Secretariat of the Antarctic Treaty Website, accessed 5/28/2017, <http://www.ats.aq/e/ats.htm>.

<sup>172</sup> Moltz, *The Politics of Space Security*, 21-22.

<sup>173</sup> Moltz, *Crowded Orbits*, 148.

These analogies establish similarities between other newly realized domains and space, but none are a perfect match. They do, however, provide the history of international interactions in new domains, and demonstrate that new frontiers are ripe for international competition, and have often seen outright conflict. Yet, there are opportunities for cooperation as well. This makes the question of interactions between nations in space particularly complicated, and accordingly there has been both competition and cooperation in space when it was occupied by only a few nations. While they were the only nations in space, the US and USSR were mostly competitive, and periodically came close to open hostility. However, there were also moments of cooperation and détente. As other nations slowly began to enter space, the two superpowers demonstrated a willingness to share technology and collaborate on missions with these new nations, but did so only selectively. These trends in the first fifty years of space history gave rise to several schools of thought on international interactions in space. These include: space nationalism, global institutionalism, technological determinism, and social interactionism.<sup>174</sup>

Space nationalism, informed by the political theory of realism, argues mainly that nations are driven to secure dominance in space over their rivals and that activities in the domain are motivated by competition. Proponents of space nationalism doubt the effectiveness of international agreements to limit competition or war in space.<sup>175</sup> This theory worked well during the first two decades of space exploration, but was undermined by the development of international legal frameworks for space collaboration

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<sup>174</sup> These categorizations and definitions are outlined by Moltz, *The Politics of Space Security*, 23-40.

<sup>175</sup> See: Everett C. Dolman, *Astropolitik: Classical Geopolitics in the Space Age* (London: Frank Cass, 2002); Colin S. Gray, "The Influence of Space Power Upon History," *Comparative Strategy* 15, no. 4 (October-December 1996), 293-308; and John J. Klein, *Space Warfare: Strategy, Principles, and Policy* (New York: Routledge, 2006).

in the late 1960's and 1970's. However, space nationalists continue to cite the ongoing militarization of space as evidence for their theories.<sup>176</sup> Global institutionalism is defined by the belief that international cooperation, treaties, and organizations will most likely guide interactions in space in a peaceful manner.<sup>177</sup> This school of thought gained momentum with the signing of the United Nations Outer Space Treaty in 1967 and peaked during the 1970's, which saw a period of détente between the US and USSR in space.<sup>178</sup>

Technological determinism includes both an optimistic theory – where technological determinists saw advanced scientific research and development as a driver of international cooperation in space – and the opposing viewpoint that military space technologies drove, and would continue to drive, the development of the space domain.<sup>179</sup> The optimistic school of thought was introduced in the early years of the space race and resurfaced when more nations began contributing to the International Space Station in later years. The more pessimistic views were prevalent throughout the Cold War and were reinvigorated towards the late 1990's when the US government began considering defensive space capabilities.<sup>180</sup> Social interactionism scholars argue that there are enough policy tools in place for space-faring nations to avoid all out conflict in space. Moreover, they argue that the US – as a leader in space – can influence trends in the domain.<sup>181</sup>

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<sup>176</sup> Moltz, *The Politics of Space Security*, 23-40.

<sup>177</sup> See: Arthur C. Clarke, *The Exploration of Space* (New York: Harper, 1959); Willey Ley, *Harnessing Space* (New York: Macmillan, 1963); Lt. Col. (USAF) Bruce DeBlois, "Space Sanctuary: A Viable National Strategy," *Aerospace Power Journal*, vol. 12, No. 4 (Winter 1998);

<sup>178</sup> Moltz, *The Politics of Space Security*, 29-31.

<sup>179</sup> For a more detailed discussion of technological determinism and its scholars, see: Moltz, *The Politics of Space Security*, 34-37.

<sup>180</sup> Ibid.

<sup>181</sup> For social interactionism, see: Paul B. Stares, *Space and National Security* (Washington, D.C.: Brookings Institution, 1987); John Lewis Gaddis, "The Evolution of a Reconnaissance Satellite Regime," in Alexander L. George, Philip J. Farley, and Alexander Dallin, eds. *U.S.-Soviet Security Cooperation*:



These schools of thought provide useful lenses through which to view international interactions in space, and each has been applicable at different moments in history. It will prove useful to see if current interactions between nations in space fit any of these models that were mostly developed during the Cold War years.

In examining these underlying concepts of the space domain, there are several key takeaways. Space activities can take many forms, including national security, civil, and commercial activities. It is also understood that in some ways, interactions between nations in the space domain parallel interactions in previous new frontiers, but space is too unique an environment for any analogy to be perfect. As such, several schools of thought about how nations have and will continue to interact in space have emerged, though each school has waxed and waned in its applicability. These understandings inform the hypothesis of this paper, that the insertion of military and intelligence assets by lesser and new space faring nations has led to a decrease in cooperative space activity.

### **Theory and Hypothesis**

Drawing on theories from the space nationalism school of thought, the hypothesis of this paper is that the recent insertion of military and intelligence assets by lesser and new space faring nations has led to a decrease in cooperative space activity. This hypothesis is also informed by several theories. First, historical lessons from other new domains reveal that nations often compete in these frontiers, and that competition can increase when more nations enter the domain. Second, the history of the space domain shows that nations compete for superiority in national security space capabilities. This was the case for the USSR, US, and shortly after, China. Now, as space technology

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*Achievements, Failures, Lessons* (New York: Oxford University Press, 1988); Michael Krepon (with Christopher Clary), *Space Assurance or Space Dominance? The Case Against Weaponizing Space* (Washington, D.C.: Henry L. Stimson Center, 2003).

continues to proliferate, we may expect to see more nations entering this competition. Third, because military and intelligence space technologies are available commercially, the need for nascent space faring or non-space faring nations to rely on a partner for technology transfers is removed. Lastly, space has become an essential domain even for nations that do not have their own space assets. Because nations rely on space for key infrastructure, commerce, and environmental monitoring, more nations may feel the need to protect these assets in the event of a war in space. As such, nations that were once content to have only civil and commercial assets in space may now seek to place their own military and intelligence assets there as well. By examining how nations have interacted in space in more recent years, this paper tests the hypothesis and determines if the supporting theories are supported.

### **Methods**

To answer the research question, a series of case studies were examined. The case studies are grouped around nations that entered space during the period of 2000 until the first half of 2017, either for the first time or for the first time with dedicated military and intelligence assets. The data presented demonstrate subsequent interactions between nations in space. The data used in this research design are from a wide variety of sources including: news reports, national policy documents, e.g. US Congressional or Department of Defense (DOD) documents or Japanese national space policy, testimony from nations' space leaders, and United Nations (UN) discussions and policies. The dependent variable is the behavior of nations in space, and the independent variable is the insertion of space based military and intelligence assets by nations who previously did not possess them.

The data is first presented in the case studies, and then measured against the behaviors seen in the first fifty years of space exploration, characterized by the limited number of countries in space, to determine if any major changes in nations' behavior are discernable. Evidence for the hypothesis includes changes in a nation's space policy to increase its own military and intelligence systems or presence in direct response to a new nation's entry to space. Evidence for the hypothesis also includes outright condemnations of a new nation's entry to space, or a withdrawal from cooperative agreements or international treaties that include space activities. Evidence against the hypothesis includes new cooperative agreements, technology sharing (though there is a caveat that two nations may do so explicitly to balance against another), or one nation championing another's insertion of military and intelligence assets into space.

The case studies were chosen because they are notable new entrants into space with military and intelligence systems. Moreover, these cases cover a set of nations with varying alliances internationally, and therefore would logically draw a wide range of international response. Additionally, some of these nation's insertions of military and intelligence assets came as a surprise to many countries, making the reactions from other space faring nations very valuable to observe. The examination of these cases will determine how the recent insertion of space-based military and intelligence assets by lesser and new space faring nations has changed interactions between nations in the space domain.

## **Data**

Many works have been written on the relationships between the premier space faring nations – Russia, the US, and China. To establish a point of comparison for

current interactions in space between nations, a summary of the interactions over the first fifty years of the space domain is necessary.

After the USSR launched the first satellite, Sputnik-1, into orbit, the space-race began. Instead of providing a way to cooperate in space, the civil space mission of landing a man on the Moon became a reason for competition. The US and Russia also tested nuclear weapons in orbit, sparking not only concerns about the nuclear threat, but also the threats these tests posed to satellites.<sup>182</sup> To place some regulations on military space activities, the two superpowers agreed to stop testing nuclear weapons in space in 1963 with the Limited Test Ban Treaty. However, they still retained the right to develop other military and intelligence assets in space.<sup>183</sup> These first years of the space race are best characterized by space nationalism.

An international effort was made at the United Nations to govern the use of space, and The Outer Space Treaty of 1967 was established as the true foundation of international space law. It was also around this time that France and Japan became the third and fourth nations (respectively) to develop their own launch capabilities and successfully place satellites into orbit.<sup>184</sup> The United States cooperated with and assisted Japan in developing its civil space capabilities. Russia, on the other hand, had recently cut ties with China, which it had previously provided with scientific assistance for the Chinese military space program.<sup>185</sup> China entered space independently in 1970, making it the fifth country to launch a satellite into orbit. Through the 1960s, the premier space

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<sup>182</sup> James Clay Moltz, "Twenty-First-Century Space Security: Conflict or Collaboration?" *Current History*, January, 2015, 18.

<sup>183</sup> Ibid.

<sup>184</sup> Steven Berner, *Japan's Space Program: A Fork in the Road?*, Technical Report (Santa Monica, CA: RAND National Security Research Division, 2005), 2-6.

<sup>185</sup> Moltz, *Crowded Orbits*, 46.

faring nations did indeed cooperate with other nations in space, but mainly competed with each other.

The Outer Space Treaty of 1967 (OST), which was ratified by the first three space faring nations (USSR, US, and China) and over one-hundred others, established key principles for international space law and emphasizes that activities in space should be peaceful and cooperative. This is a key piece of evidence for the proponents of global institutionalism, who contend that agreements such as the OST will lead to the peaceful use of space. The OST was written specifically so the USSR and US would retain the right to keep their military and intelligence assets in space. The treaty only explicitly bans placing nuclear and other weapons of mass destruction in space, and prevents military activities on the moon.<sup>186</sup> Because of the treaty's bans on extension of territorial claims into space, the treaty established the right of over flight, or, the right to fly satellites over other sovereign nations. Other key provisions of the treaty include: establishing all nations' rights to explore and use outer space; limiting the use of the Moon and other celestial bodies to peaceful purposes; and affirming states' responsibility for national activities in outer space whether by governmental agencies or non-governmental agencies.<sup>187</sup>

The next decades saw a period of détente and an unprecedented level of cooperation between the two superpowers, the USSR and US, followed by heightened tensions as the Cold War heated up in the 1980s. The Anti-Ballistic Missile Treaty (ABM) of 1972 limited the ability of the two superpowers to deploy both land and space-

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<sup>186</sup> UN Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, January 27, 1967, 610 UNTS 205, 6 ILM 386 (1967), available at [http://www.unoosa.org/pdf/publications/ST\\_SPACE\\_061Rev01E.pdf](http://www.unoosa.org/pdf/publications/ST_SPACE_061Rev01E.pdf).

<sup>187</sup> Ibid.

based missile defense systems.<sup>188</sup> The signing of this treaty by both nations was seen as a step forward for cooperation in space. In addition to the ABM treaty, both nations made overtures about possible treaties against anti-satellite (ASAT) weapons, though none were signed. Interestingly, during this two-decade span both nations assisted India in developing its own space capabilities, lending some credit to the theories of technological determinism. Eventually, the US and USSR agreed to begin cooperating on civil space missions in 1987, and this has continued in some form to present day – though there are still significant tensions between the two nations in their space relations.

There are also international legal frameworks in place that suggest cooperation in space can be expected to a limited degree. The OST contains some provisions that address the issue of managing orbital debris, but as more collisions between satellites occurred over time, the UN worked to create more regulation to prevent crises. Eventually, in 2007, the United Nations Office for Outer Space Affairs (UNOOSA) endorsed the Space Debris Mitigation Guidelines aimed at increasing “mutual understanding on acceptable activities in space,” thus enhancing “stability in space-related matters,” and decreasing “the likelihood of friction and conflict.”<sup>189</sup> Space traffic management is an ongoing issue, and many calls have been made for more international cooperation in this arena.<sup>190</sup> Another area in which there are international regulations on space activities is in the telecommunications sector. The International

Telecommunications Union (ITU) has distributed rights to the radio frequency spectrum

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<sup>188</sup> Daryl Kimball and Kingston Reif, “The Anti-Ballistic Missile (ABM) Treaty at a Glance,” *Arms Control Association* website, <https://www.armscontrol.org/factsheets/abmtreaty>.

<sup>189</sup> UN Office of Outer Space Affairs, “Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space,” United Nations (Vienna, 2010), accessed 5/21/17 [http://www.unoosa.org/pdf/publications/st\\_space\\_49E.pdf](http://www.unoosa.org/pdf/publications/st_space_49E.pdf).

<sup>190</sup> Phillip Swarts, “Many Questions, Few Answers When it Comes to Space Traffic Management, Experts Say,” *SpaceNews*, January 17, 2017, <http://spacenews.com/many-questions-few-answers-when-it-comes-to-space-traffic-management-experts-say/>.

since the 1960s. Communications satellites need to use the radio frequency spectrum to transmit their data, and spectrum is a finite resource. This includes spectrum allocations for secured satellite communications, e.g. for military purposes. Nations meet at the ITU to discuss matters of international spectrum allocation on a regular basis.<sup>191</sup>

The space race between the USSR and US was motivated by national pride, competitive spirit, and the desire to spy on one another from above. While they were the only actors in space, the two nations were mostly competitive, and periodically came close to open hostility. However, there were also moments of cooperation and détente. As other nations began to enter space, the two superpowers demonstrated a willingness to selectively share technology and collaborate on missions with these new nations. At the end of the 1990s, the space domain could be characterized as cooperative, albeit militarized.

Yet the number of actors in space then was nowhere near the level it is today. And even prior to the increased entry of new nations into space, international concerns about conflict in the domain abounded. The question remains: how has the dramatically higher number of nations inserting not only civil and commercial, but also military and intelligence capabilities into space, changed how nations interact in space? The data will demonstrate whether space faring nations are now more willing to work cooperatively or tend more toward competition and even hostility.

### **Japan<sup>192</sup>**

Japan began developing its own space capabilities during the Cold War for scientific and economic purposes. Japan's early space activities were strictly non-military

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<sup>191</sup> International Telecommunication Union, "About ITU," ITU Website, <http://www.itu.int/en/about/Pages/default.aspx>.

<sup>192</sup> A brief timeline of the events in the data section can be found in the appendices.

and based on the principles of “international cooperation, “peaceful purposes,” and “openness to the public” from the earliest stages.<sup>193</sup> This changed in 1998 when North Korea launched a missile that flew over Japanese territory, catching the Japanese government by surprise and spurring them to commence a reconnaissance satellite program for national security purposes.<sup>194</sup> The inauguration of this program was also prompted as a means to develop an independent set of space intelligence assets. The president of Japan’s National Space Development Agency noted that “technological independence” and “information independence” were central for Japan at that time.<sup>195</sup> Japan launched its Information Gathering Satellites (IGS) in March 2003, prompting a sharp response from North Korea.<sup>196</sup> Elsewhere, the response to Japan’s new space based intelligence assets was quiet. The launch of these satellites marked a sea change in Japan’s space policy, which was soon updated to reflect their desire to further utilize space for military and intelligence purposes.

In 2008 and 2009, Japan updated its space policy to allow for the development and use of space for military purposes, so long as any space systems were defensive in nature.<sup>197</sup> These changes to Japanese space policy came shortly after China’s test of an anti-satellite (ASAT) weapon in 2007, and were made with the specific aim to “enforce the national security for the purpose of improving and reinforcing information gathering functions and enhancement of warning and surveillance activities in the light of the

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<sup>193</sup> Hirotaka Watanabe, “Japan’s Space Strategy,” in *Space Strategy in the 21<sup>st</sup> Century*, ed. Eligar Sadeh (Routledge, USA/Canada, 2013,) 279.

<sup>194</sup> Sarah Buckley, “Analysis: Japan’s Spy Satellites,” March 28, 2003, BBC News, accessed 5/21/17, <http://news.bbc.co.uk/2/hi/asia-pacific/2892641.stm>.

<sup>195</sup> John M. Diamond, ed., *The Space Report 2009* (Colorado Springs: The Space Foundation, 2009), 23.

<sup>196</sup> Buckley, “Analysis: Japan’s Spy Satellites,”

<sup>197</sup> Moltz, *Crowded Orbits*, 139.



international situation, especially the circumstances in North East Asia.”<sup>198</sup> While this introduction of military and intelligence space assets was a major change for Japan, the country still aimed to promote diplomacy in space.

The same policy that established a military space program also affirmed Japanese commitment to seek further collaboration with the premier space faring nations, including China.<sup>199</sup> Japanese cooperation with other nations in space continued – and even expanded – after the institution of its national security space program. A major step in its updated space policy set in motion Japanese efforts to help Vietnam develop its own space based earth observation capabilities. Japan also began projects with India, the European Space Agency (ESA), and other nations, while continuing its efforts on the International Space Station (ISS). Japan also initiated several regional cooperative programs, including a joint Earth-observation project with India, South Korea, Malaysia, Thailand, and Vietnam.<sup>200</sup>

As Japan continued to place more military and intelligence systems into space since 2003, it also increased cooperation in space with the US, notably on military missions. In 2013, Japan updated its National Security Policy to integrate Japan’s space policy with its military strategy and to call for closer coordination with the US in military space.<sup>201</sup> Welcoming this increased cooperation, in 2015 the US updated its joint defense

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<sup>198</sup> Japan’s Strategic Headquarters for Space Policy, “Basic Plan for Space Policy: Wisdom of Japan Moves Space,” June 2, 2009, p. 8.

<sup>199</sup> Hirotaka Watanabe, “Japan’s Space Strategy,” in *Space Strategy in the 21<sup>st</sup> Century*, ed. Eligar Sadeh (Routledge, USA/Canada, 2013,) 289-291.

<sup>200</sup> James Clay Moltz, *Asia’s Space Race: National Motivations, Regional Rivalries, and International Risks*, Contemporary Asia in the World (New York: Columbia University Press, 2011), 67.

<sup>201</sup> Paul Kallender-Umezu, “What’s Behind Japan’s Sudden Thirst for More Spy Satellites,” *SpaceNews*, November 13, 2015, accessed 5/21/17 <http://spacenews.com/whats-behind-japan-sudden-thirst-for-more-spy-satellites/>.

guidelines with Japan, ensuring increased cooperation in military space.<sup>202</sup> It should be noted that Japan still wants to achieve a higher level of independence in this relationship to “move from dependency to coexistence with the U.S.”<sup>203</sup> Japan also established trilateral relations for intelligence sharing with South Korea through the US in 2014.<sup>204</sup>

As a regional rival to Japan in space capabilities, China has been taciturn about its thoughts on Japan’s increased military space activity, though Chinese state-media reported Japan’s 2008 space policy revisions as having hostile intent.<sup>205</sup> The two nations have cooperated in a limited capacity on certain civil space missions and issues since 2000, but many perceive the relationship as adversarial; proposing that the two nations are vying for regional dominance in space through demonstrations of their advanced space capabilities.<sup>206</sup>

### **Turkey**

Turkey initiated plans to acquire its own spy satellites in 2000.<sup>207</sup> After deals fell through to purchase satellites from Israel and France, Anakara took a different approach – establishing collaborative efforts to develop satellites indigenously. This resulted in the BILSAT reconnaissance satellite (2003) and the RASAT reconnaissance program

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<sup>202</sup> US Department of Defense, “Guidelines for U.S.-Japan Defense Cooperation,” April 27, 2015, accessed [http://archive.defense.gov/pubs/20150427\\_--\\_GUIDELINES\\_FOR\\_US-JAPAN\\_DEFENSE\\_COOPERATION.pdf](http://archive.defense.gov/pubs/20150427_--_GUIDELINES_FOR_US-JAPAN_DEFENSE_COOPERATION.pdf).

<sup>203</sup> Statement of Takeo Kawamura in Jeff Foust, “Japan Seeks to Become Full Partner with U.S. in Space,” *SpaceNews*, December 11, 2015, accessed 5/21/17 <http://spacenews.com/japan-seeks-to-become-full-partner-with-u-s-in-space/>.

<sup>204</sup> Ankit Panda, “US, South Korea, Japan Start Sharing Intelligence on North Korea,” December 30, 2014, *The Diplomat*, accessed 5/21/17, <http://thediplomat.com/2014/12/us-south-korea-japan-start-sharing-intelligence-on-north-korea/>

<sup>205</sup> Manuel Manriquez, “Japan’s Space Law Revision: the Next Step Toward Re-Militarization?” January 1, 2008, *The Nuclear Threat Initiative*, accessed <http://www.nti.org/analysis/articles/japans-space-law-revision/>

<sup>206</sup> James Clay Moltz, *Asia's Space Race: National Motivations, Regional Rivalries, and International Risks*, Contemporary Asia in the World (New York: Columbia University Press, 2011), 66

<sup>207</sup> Aaron Stein, “Turkey’s Space Policy,” Centre for Economics and Foreign Policy Studies, 2014, p. 5, accessed 5/21/17, <http://www.edam.org.tr/en/File?id=1156>.

(2004).<sup>208</sup> These efforts made use of foreign satellite technologies, but the systems were developed in Turkey. With the intent to further limit reliance on foreign military technology, Turkey began the development of the Göktürk satellite program in 2007.<sup>209</sup> Beyond the issue of reliance on other countries for space technology, Turkish military officials emphasized the importance of space for autonomous intelligence gathering and maintaining effective military operations on the ground.<sup>210</sup> Speaking at a ceremony for the launch of the second Göktürk satellite in 2016, Turkish President Recep Erdoğan stated that it was the country's goal "to design, produce and send to space satellites more advanced than Göktürk-1," and continued "it is a must for us to develop our satellites by ourselves." Erdoğan cited military embargoes from western countries as a reason why Turkey must develop indigenous space production.<sup>211</sup> Though the program involves technological cooperation between several foreign companies and Turkish defense industry companies, Turkish officials laud the Göktürk program as a major step forward for independence in their military space activities.

International responses to Turkey's launch of spy satellites were mixed. The BILSAT and RASAT programs were considered civil space efforts and involved international cooperation.<sup>212</sup> The Göktürk program, however, was clearly military in

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<sup>208</sup> Ibid., 6-8.

<sup>209</sup> Herbert J. Kramer, "Göktürk-2 Imaging Mission, Turkey," Earth Observation Portal, accessed 5/21/17, <https://directory.eoportal.org/web/eoportal/satellite-missions/g/gokturk-2>; and Taylor Dinerman, "Turkey's Military Satellite Program: A Model for Emerging Regional Powers," The Space Review, January 2, 2007, accessed 5/21/17, <http://www.thespacereview.com/article/774/1>

<sup>210</sup> Turkish Press and Other Media No. 203/06 20.10.06, "Cyprus PIO: Turkish Press and Other Media, 06-10-20," on the Hellenic Resources Network website, accessed 5/21/17, <http://www.hri.org/news/cyprus/tcpr/2006/06-10-20.tcpr.html>; and Herbert J. Kramer, "RASAT," EO Portal Directory, accessed 5/21/17, <https://directory.eoportal.org/web/eoportal/satellite-missions/r/rasat>.

<sup>211</sup> Presidency of the Republic of Turkey, "President Erdoğan Stresses Domestic Production in Defense Industry," 5/12/2016, Presidency of the Republic of Turkey Website, <http://www.tccb.gov.tr/en/news/542/65259/president-erdogan-stresses-domestic-production-in-defense-industry.html>

<sup>212</sup> "Bilsat 1," Gunther's Space Page, accessed 5/21/17, [http://space.skyrocket.de/doc\\_sdat/bilsat-1.htm](http://space.skyrocket.de/doc_sdat/bilsat-1.htm).

nature, and caused some concern with other space faring nations. Defense industry companies from Russia, the US, France and South Korea declined to bid on the Göktürk proposal, despite ongoing relationships in military sales.<sup>213</sup> China, on the other hand, provided the launch services for Göktürk-2. Israel raised significant objections to the Göktürk program, citing concerns that Turkey would now be able to produce high-resolution imagery of Israeli territory. Israel went so far as to lobby France and the US on the matter, albeit to no avail. Turkish President Recep Erdoğan dismissed these concerns and emphasized the importance of the Göktürk program for Turkey's national security.<sup>214</sup>

While promoting its own independence in space, Turkey has also been a party to several cooperative space agreements. Outside of its UN Committee on the Peaceful Uses of Outer Space (COPUOUS) membership, Turkey signed on to the Chinese led Asia-Pacific Space Cooperation Organization (APSCO) in 2006. APSCO is intended to promote the peaceful use of space technology in the Asia-Pacific region; its membership consists of China, Bangladesh, Iran, Mongolia, Pakistan, Peru, Thailand, and Turkey.<sup>215</sup> Though Japan is not a part of APSCO, Turkey and Japan established their own cooperative bilateral relationship in space in 2016.<sup>216</sup> Turkey also maintains a

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<sup>213</sup> Republic of Cyprus Press and Information Office, "Turkish Mass Media Bulletin 19-06-2007," Cyprus Press and Information Office website, accessed 5/21/17, <http://www.moi.gov.cy/MOI/pio/pio.nsf/All/2CCA0E24493F6616C22572FF003BBC9B?OpenDocument>

<sup>214</sup> Ibon Villedelaitia, "Turkey Dismisses Israel's Concerns Over Satellite," Reuters, March 11, 2011, accessed 5/21/17, <http://www.reuters.com/article/turkey-israel-satellites-idUSLDE72A1VM20110311>

<sup>215</sup> *Yearbook On Space Policy: New Impetus for Europe*, The Yearbook On Space Policy (Place of publication not identified: SpringerWienNewYork, 2008), p. 21.

<sup>216</sup> Spacewatch Middle East, "Turkey and Japan Sign Space Cooperation Agreement for International Space Station," SpacewatchME website, September 8, 2016, accessed 5/21/17, <https://spacewatchme.com/2016/09/turkey-japan-sign-space-cooperation-agreement-international-space-station/>

cooperative agreement with the European Space Agency (ESA), signed in 2004.<sup>217</sup>

Turkey has recently ramped up its plans for national security space and hopes to have 16 satellites launched by 2023.<sup>218</sup> In early 2017, the Turkish parliament took a major step to formally establish itself as a regional space power by introducing a draft bill to create a Turkish space agency.<sup>219</sup> Should Turkey continue on its path to fully indigenous space systems and a well-organized space apparatus, it will likely emerge as a formidable space power in the region.

### **South America**

Several South American nations have recently developed or acquired military and intelligence satellites. The proliferation of space technologies to South America began during the Cold War, but Brazil, Venezuela, Chile, and Peru, have recently launched their first satellites for national security purposes. Brazil signaled its intent to use space for its military and intelligence needs in its 2008 National Defense Strategy report.<sup>220</sup> Brazil has sustained a program for dual-use earth observation satellites, named CBERS, with China since 2000.<sup>221</sup> In 2017, Brazil launched its own military communications satellite (SGDC), manufactured by a French-Italian aerospace company – Thales Alenia Space. Brazilian space operators also received substantial technical training from Thales Alenia

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<sup>217</sup> ESA, “ESA Signs Cooperation Agreement With Turkey,” ESA website, September 6, 2004, accessed 5/21/17,

[http://www.esa.int/About\\_Us/Business\\_with\\_ESA/ESA\\_signs\\_Cooperation\\_Agreement\\_with\\_Turkey](http://www.esa.int/About_Us/Business_with_ESA/ESA_signs_Cooperation_Agreement_with_Turkey).

<sup>218</sup> Stein, “Turkey’s Space Policy,” p. 13.

<sup>219</sup> Jaroslaw Adamowski, “Turkey’s Parliament Deliberates on Space Agency Law,” *SpaceNews*, March 28, 2017, accessed 5/21/17, <http://spacenews.com/turkeys-parliament-deliberates-on-space-agency-law/>

<sup>220</sup> Johanna Forman, Vincent Sabathier, G. Faith, and Ashley Bander, “Toward the Heavens: Latin America’s Emerging Space Programs,” August, 2009, CSIS Americas Program and Space Initiatives, p. 5.

<sup>221</sup> Craig Covault, “China’s Military Space Surge,” March, 2011, American Institute of Aeronautics and Astronautics, p. 35.

Space.<sup>222</sup> The SGDC program was initiated in 2011 to provide secure communications for Brazil's government and military and to achieve a greater level of autonomy in its space activities. This was at least in part prompted by allegations that the US had spied on Brazil's government.<sup>223</sup> While establishing its military and intelligence space programs, Brazil also established bilateral cooperative agreements with several other nations including Argentina, Japan, Germany, Ukraine, Russia, and Canada, and several multi-lateral cooperative arrangements. Despite attempts to re-engage in collaborative missions, the US and Brazil have very limited cooperation in space activities, and Brazil cites US International Traffic in Arms Regulations (ITAR) that control the import and export of defense materiel and expertise (including space technology), as the primary reason.<sup>224</sup>

Venezuela also received support from China in acquiring national security space assets. In 2008 and 2012, Venezuela received Chinese assistance in manufacturing and launching a communications and earth observation satellite, respectively.<sup>225</sup> Then Venezuelan President Hugo Chavez signaled that the development of these satellites was

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<sup>222</sup> Stephen Clark, "Launches Resume in French Guiana with Dual-Payload Ariane 5 Flight," May 4, 2017, Spaceflight Now, <https://spaceflightnow.com/2017/05/04/launches-resume-in-french-guiana-with-dual-payload-ariane-5-flight/>

<sup>223</sup> Brad Haynes, "Brazil Ramps Up Domestic Space Satellite, Rocket Programs," March 22, 2017, Reuters, accessed 5/21/17, <https://www.reuters.com/article/us-brazil-satellite-idUSKBN16T2BD>; and Anthony Boadle, "Brazil Tries to Elude NSA With New Cables, Satellite," September 5, 2013, Reuters, accessed 5/21/17, <http://www.reuters.com/article/us-usa-security-brazil-spying-idUSBRE98411420130905>.

<sup>224</sup> Amy Svitak, "United States and Brazil Extend Space Cooperation Accord," March 28, 2011, SpaceNews, accessed 5/22/17, <http://spacenews.com/united-states-and-brazil-extend-space-cooperation-accord/>; Peter B. de Selding, "Brazil Bypassing the U.S. as it Builds out a Space Sector," April 16, 2015, SpaceNews, accessed 5/22/17, <http://spacenews.com/brazil-bypassing-the-us-as-it-builds-out-a-space-sector/>; "Space Agencies from BRICS Sign Cooperation Protocol," November 2, 2016, Russia and India Report, accessed 5/21/17, [https://in.rbth.com/economics/technology/2016/11/02/space-agencies-from-brics-sign-cooperation-protocol\\_644343](https://in.rbth.com/economics/technology/2016/11/02/space-agencies-from-brics-sign-cooperation-protocol_644343); Doug Messier, "Brazil, Japan to Cooperate on Micro- and Nanosats," October 4, 2011, Parabolic Arc, accessed 5/22/17, <http://www.parabolicarc.com/2011/10/04/brazil-japan-to-cooperate-on-micro-and-nanosats/>.

<sup>225</sup> Veronica Magan, "Venezuela: Latin America's Next Space Pioneer?" August 23, 2013, *Satellite Today*, accessed 5/21/17, <http://www.satellitetoday.com/publications/2013/08/23/venezuela-latin-americas-next-space-pioneer-2/>.

a nod to waning US hegemony in the region.<sup>226</sup> Venezuela also stated its intent to collaborate with other nations in space activities while still trying to establish itself as a regional power. In 2013, the president of Venezuela's space agency noted that the country would seek collaboration with other South American countries including Brazil and Bolivia, and was open to regional cooperative programs such as a launch center that would be managed as a bloc.<sup>227</sup>

Chile and Peru also recently acquired and launched their first military reconnaissance satellites from France's Airbus Defence and Space company in 2011 and 2016, respectively.<sup>228</sup> Simultaneous with the initiation of these numerous South American nations' national security space programs, there has been some cooperative rhetoric between their leaders. In 2011, the Argentine Defense Minister Arturo Puricelli suggested the formation of a South American Space Agency with support from Brazil.<sup>229</sup> As previously mentioned, even Venezuela has offered to work cooperatively with other nations in the region. Brazil has also participated in a limited role in the ISS program, sending an astronaut to the station in 2006.<sup>230</sup>

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<sup>226</sup> Alex Sanchez, "Space Technology Comes to Latin America: Part of the Hemisphere's Road to Autonomy," September 10, 2008, Council on Hemispheric Affairs, accessed 5/21/17, <http://www.coha.org/space-technology-comes-to-latin-america-part-of-the-hemisphere%E2%80%99s-road-to-autonomy/>; and Chris Kraul, "Venezuela Deepens Trade, Military Ties with China," January 12, 2009, *Los Angeles Times*, accessed 5/21/17, <http://articles.latimes.com/2009/jan/12/world/fg-venezuela-china12>.

<sup>227</sup> Magan, "Venezuela: Latin America's Next Space Pioneer?"

<sup>228</sup> Peter B. de Selding, "Airbus Beats Crowded Field to Build Peru a Reconnaissance Satellite," April 24, 2014, SpaceNews, accessed 5/21/17, <http://spacenews.com/40333military-space-quarterly-airbus-beats-crowded-field-to-build-peru-a/>.

<sup>229</sup> Merco Press, "Argentina, with Brazilian Support Proposes a South American Space Agency," September, 2011, Merco Press website, accessed 5/21/17, <http://en.mercopress.com/2011/09/01/argentina-with-brazilian-support-proposes-a-south-american-space-agency>

<sup>230</sup> Forman et al, "Toward the Heavens," p. 3.

## Discussion

Informed by the space nationalism school of thought, the hypothesis of this paper is that the recent insertion of military and intelligence assets by lesser and new space faring nations has led to a decrease in cooperative space activity. According to the data, the hypothesis has been proven quantitatively wrong, but its informing theories have significant supporting evidence. There has been no pervasive decrease in cooperative space activity because of nations' new military and intelligence assets, and in some cases cooperation has actually increased. This would appear to directly conflict with the hypothesis and instead align with the global institutionalism school of thought. However, there is evidence to suggest the space domain is more competitive despite increased cooperation between certain nations, underscored by connotations of competition within these new cooperative agreements. This evidence is more in line with the space nationalism or pessimistic technological determinism schools of thought.

Japan's establishment of national security space activities in the form of its IGS satellites was in direct response to an increased threat from North Korea (a non-space faring nation). Though this was a major shift for Japan's space policy, the country increased its level of cooperation in the international space community. Notably, Japan's Basic Plan for Space Policy of 2009 acknowledged China as a premier space faring country and promoted the establishment of a close relationship with China in space activities.<sup>231</sup> Although this and other evidence regarding Japan's increased level of cooperative space activities clearly contradicts the hypothesis and is more in line with global institutionalism, Japan's simultaneous enhancement of bilateral relations with the

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<sup>231</sup> Hirotaka Watanabe, "Japan's Space Strategy," in *Space Strategy in the 21<sup>st</sup> Century*, ed. Eligar Sadeh (Routledge, USA/Canada, 2013,) 289-291.



US military may in fact demonstrate a level of increased competition. The US-Japan space relationship could be seen as a way for Japan to balance against China militarily, and as an attempt to challenge China for regional dominance in the space domain. China is the regional leader in military space capabilities, but Japan is in a position to compete for that role soon if it chooses to do so.<sup>232</sup> Bilateral and multilateral cooperative agreements such as those with South Korea and India may help Japan act as a regional leader in space activities. Thus, the case of Japan suggests that although Japan increased its level of cooperative space activities, this cooperation does not necessarily support the views from the global institutionalism school of thought that these types of agreements decrease competition in space.

The case of Turkey shows evidence both for and against the hypothesis. Israel protested Turkey's development of spy satellites with the ability to image Israeli territory with high resolution. Additionally, companies from several nations that already had military relations with Turkey chose not to bid on its request for proposal for the Göktürk program. The latter detail is not direct evidence for the hypothesis, but does display a certain level of discomfort from the international community about Turkey's intent to develop spy satellites. Turkey also championed its newfound independence from other nations' technological assistance (though it received significant aid from a European partnership on Göktürk-2), and stated its intention to further develop indigenous space capabilities. This evidence generally supports the hypothesis and points to a more competitive space environment. However, Ankara also signed cooperative agreements with APSCO (led by China) and ESA during the period of study, as well as a bilateral

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<sup>232</sup> James Clay Moltz, *Asia's Space Race: National Motivations, Regional Rivalries, and International Risks*, Contemporary Asia in the World (New York: Columbia University Press, 2011), p. 68.

cooperative agreement with Japan. Therefore, while Ankara is demonstrating competition by touting its independence and regional power, it is also maintaining and adding new cooperative space agreements with the EU and China, suggesting they are engaging more in cooperative space activities than competition or conflict.

The South American countries provide more evidence against the hypothesis than for. Brazil and Venezuela's partnership with China in space activities is emblematic of a push from South American nations for independence from US leadership. Cooperative agreements between Brazil and the US began to deteriorate during the 1990s when the US used the Missile Technology Control Regime treaty to prevent Brazil from producing a rocket for its space program.<sup>233</sup> Though the US and Brazil have limited cooperation on other space activities such as the LANDSAT mission, the US is still seemingly reluctant to engage with Brazil (and other South American nations) fully on space activities.<sup>234</sup> These US regulations provide no barrier for China to work with these nations, and Beijing seized the opportunity to establish cooperative relationships. These bilateral agreements with China, in combination with the purported willingness from several South American nations to develop a bloc-controlled space agency, demonstrate a more cooperative space environment has emerged since the establishment of South American national security space programs. Again, however, there is also an undercurrent of competition. The US is clearly reluctant to cooperate in space activities in this region. Additionally, the US and China are competitors in the space domain, and China's influence in the region could be interpreted as a way to assert more influence in global

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<sup>233</sup> Forman et al., "Toward the Heavens," p. 8.

<sup>234</sup> Ibid.; and Peter B. de Selding, "Brazil Bypassing the U.S. as it Builds out a Space Sector."

space affairs.<sup>235</sup> Moreover, the alignment of these South American nations with China indicates they may be looking to balance to some degree against the dominant space power in their hemisphere – the US.

The majority of evidence suggests that the insertion of military and intelligence assets into space by lesser and new space faring nations has resulted in a stable or increased number of cooperative space activities as compared to the first fifty years of space exploration. While this evidence proves the hypothesis quantitatively wrong, it does not indicate that the space environment is more cooperative because of these agreements – as the theory of global institutionalism would suggest. There are legitimate arguments to be made that many of the cooperative agreements established by these lesser and new space faring nations have created a more competitive international space environment, placing the current status of the domain more in line with space nationalism. In the cases of Japan, Turkey, and Venezuela, the data suggest these nations are vying for regional dominance in space activities, and are utilizing cooperative agreements only as a means to strengthen their space programs to achieve that goal.

### **Conclusion**

This paper set out to determine how the recent insertion of military and intelligence assets into space by lesser and new space-faring nations has changed how nations interaction in space. By establishing key underlying concepts of the space domain, it was determined that in some ways, interactions between nations in the space domain parallel interactions in previous new frontiers. It was also determined that several schools of thought about how nations have and will continue to interact in space have

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<sup>235</sup> See, for example: R. Evan Ellis, “Advances in China – Latin American Space Cooperation,” *China Brief* Vol 10:14, July 9, 2010, Jamestown Foundation, p. 5-7.

emerged, though each school has waxed and waned in its applicability. Informed by these notions, a hypothesis was formed that the recent insertion of military and intelligence assets by lesser and new space faring nations has led to a decrease in cooperative space activity. A series of case studies was undertaken, surveying the behaviors of space faring nations after the first insertion of military and intelligence assets by several lesser and new space faring nations. After examining the case studies, the hypothesis was proven wrong, but its supporting theories were supported. While there has been an increased level of cooperation in space, there is evidence to suggest the domain is now a more competitive environment.

In reaching these conclusions, this entry into the discussion of the politics of space security demonstrates key lessons about how intelligence and military activities influence the interaction between nations in this domain. The conclusions of this study suggest that the theory of global institutionalism, which states that cooperative agreements will lead to a more peaceful use of space, may not be true today. The theories of space nationalism and technological determinism are most supported by the data, as space has continually been militarized, and nations have established bilateral agreements to help each other establish national security space programs. However, because of the limitations on available data (many nations do not publish information about their national security space programs and strategies), and the scope of this paper, these conclusions are limited only to the cases studied. More research should be done on the nature of cooperative agreements between all space faring nations since 2000. A quantitative analysis of the amount of cooperative space agreements prior to and after 2000 would also prove valuable in an assessment of how nations interact in space. More

research should also be conducted on how bilateral cooperative agreements that help one nation establish military and intelligence functions have impacted international relations to examine a similar question in another domain.

## **Conclusion**

This thesis has provided three in-depth studies that illustrate the wide reaching impacts of intelligence activities outside of the world of espionage. The cases in each chapter examined the ways in which intelligence activities shape other, more observable, arenas such as international relations, policy-making, and the behaviors of violent non-state actors (VNSA). In doing so, this portfolio is aimed at enriching the field of intelligence studies by stepping outside of the existing, inward-looking research that dominates the field today. Additionally, the portfolio provides a framework for further research on the role intelligence activities may play in other areas.

The first chapter explored the impact U.S. intelligence analysis had on the Cold War policy of attempting to enact regime change in other countries. Through a series of case studies, it was determined that intelligence analysis was likely able to have influenced policymaking. This research was limited in its scope in that it only examined the impact intelligence analysis had on one Cold War policy (regime change). The research design used in this study could be applied to an expanded study on whether intelligence analysis was able to inform another identifiable policy. A body of research along these lines would have implications for improving intelligence analysis in the long run. The data in this particular study were also insufficient to unequivocally prove the direct influence of intelligence analysis on policy making. The research could be augmented by examining the relationship between policymakers and the intelligence apparatus at their disposal, which may shed light on how intelligence analysis was received by policymakers. This addition would strengthen the case in determining if intelligence analysis did indeed have direct influence on policy. While there are

limitations in this study, it is nonetheless a valuable demonstration of the interconnectedness between intelligence and policymaking, further illuminating the impact that intelligence may have on shaping state behavior.

The second chapter examined how violent non-state actors' intelligence functions have developed over the past two decades (since 1997). Three case studies determined that the intelligence functions of VNSA generally showed significant developments over the past two decades and that these developments largely mirrored developments seen in states' intelligence agencies, although delayed. This research carries with it many implications. First, it demonstrates that intelligence functions play a key role in the continued existence of VNSA. Second, the data show that VNSA continue to learn, adapt, and often improve their intelligence functions over time. Lastly, VNSA were shown to learn from state intelligence activities and model their own intelligence functions in a similar manner. Each of these conclusions illustrate that the intelligence activities of states have had an impact on the behaviors of VNSA, and more research should be conducted on other ways VNSA learn of and utilize intelligence activities. The research should be expanded to include other VNSA to help broaden our understanding of their intelligence activities. A future trend analysis of developments in both states' and VNSA's intelligence functions may also provide indicators as to how VNSA will develop in the future.

The third chapter assessed how the recent insertion of space based military and intelligence assets by lesser and new space faring nations has impacted how nations interaction in space. A series of case studies determined that though there has been an increased level of cooperation in space after the recent increase in new military and

intelligence space programs, the domain might in fact now be a more competitive environment. The data suggest that new nations inserting military and intelligence systems into space are vying for regional dominance in space activities and are utilizing cooperative agreements as a means to strengthen their space programs. This study provided a rare opportunity to analyze how intelligence activities impact international relations, an area that is difficult to research due to its clandestine nature. The research showed that in some cases, nations were proud of their new intelligence gathering satellites and publicized them to demonstrate their technological prowess. This type of public display of a nation's intelligence capabilities is not commonplace, thus making it unique. The conclusions from this study help further our understanding of the impacts intelligence activities have on international relations, a significant contribution to the literature on international intelligence activities. The research, however, should be expanded to include other new space faring nations that have recently inserted military and intelligence assets into space, though the data in this area is limited. Additionally, the research design could be employed to study how the establishment of other military and intelligence functions has impacted international relations.

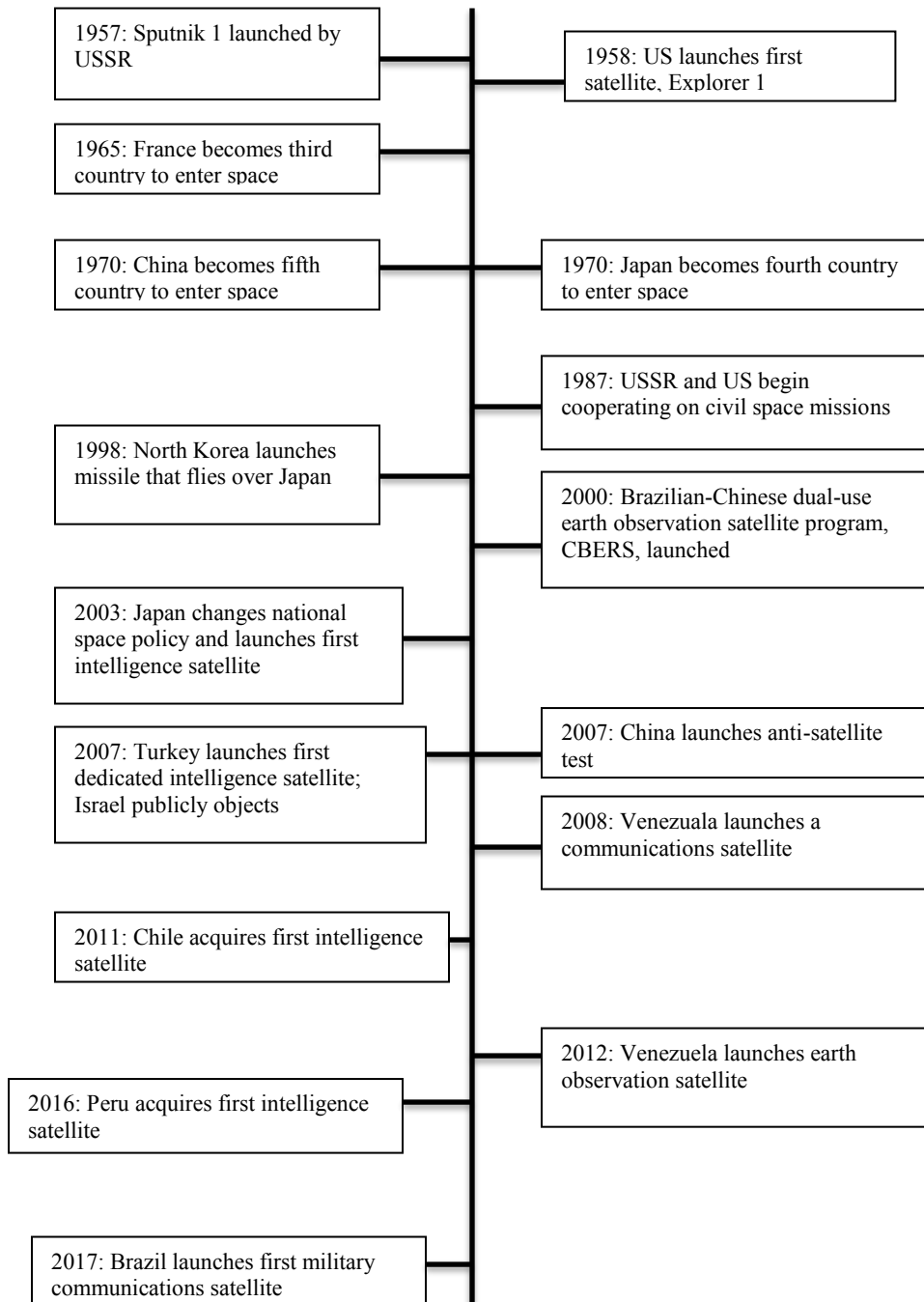
The studies in this portfolio exemplify the reality that intelligence activities do not exist in a vacuum – they have wide reaching influences on other activities such as policy making, geopolitics, and international relations. By demonstrating the bearing that intelligence activities have on state behavior and interaction, the implications of these studies highlight that the impacts of intelligence activities should also be considered in other area studies. The research designs in this portfolio may be used as a framework to conduct further multidisciplinary research, and may reveal additional instances in which



intelligence activities play an unconsidered or unexpected role. This kind of research will require the continued declassification of historical material on intelligence activities; otherwise it will remain limited in its scope. In examining some of the expected and unexpected effects of intelligence activities, this portfolio is intended to elevate the visibility of the impacts intelligence activities have in other arenas and hopes to inspire similar research.

## Appendices

### A Brief Timeline of New Space-based Military & Intelligence Programs



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## **Curriculum Vitae**

The author graduated from Kenyon College in Gambier, Ohio, in 2014 with a B.A. in History. He began his studies at Johns Hopkins in the spring of 2016 and anticipates obtaining an M.A. in Global Security Studies in the summer of 2017. He currently works as a consultant focusing on national security space issues in Washington, DC.